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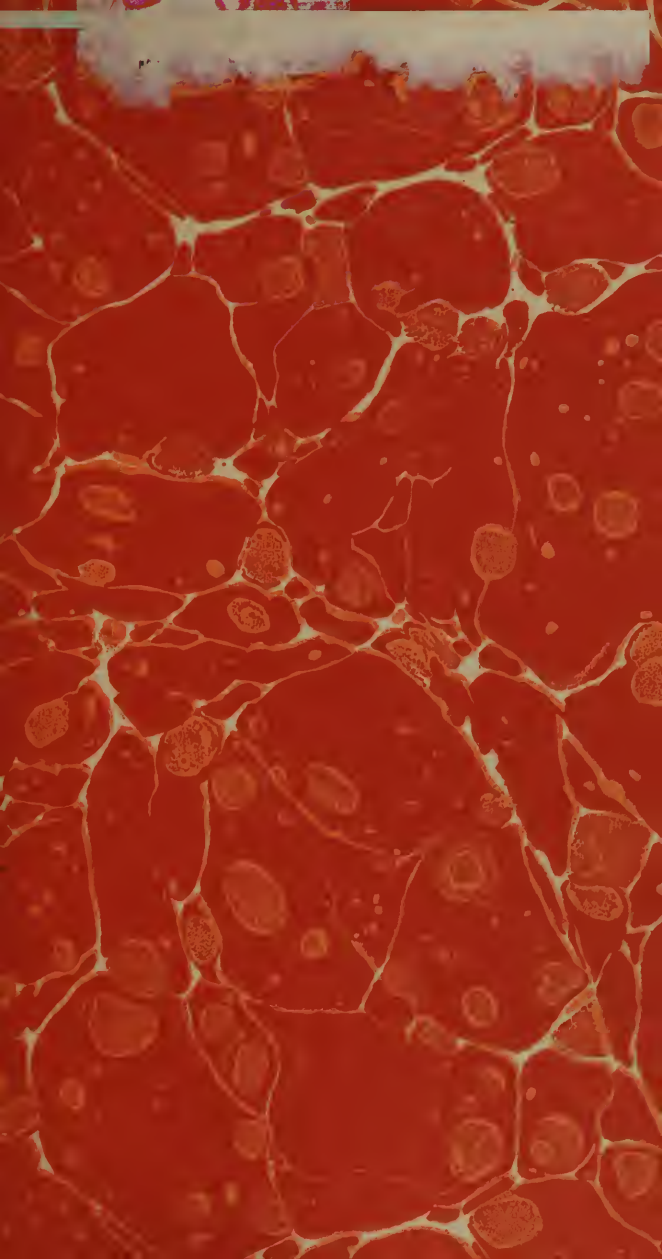
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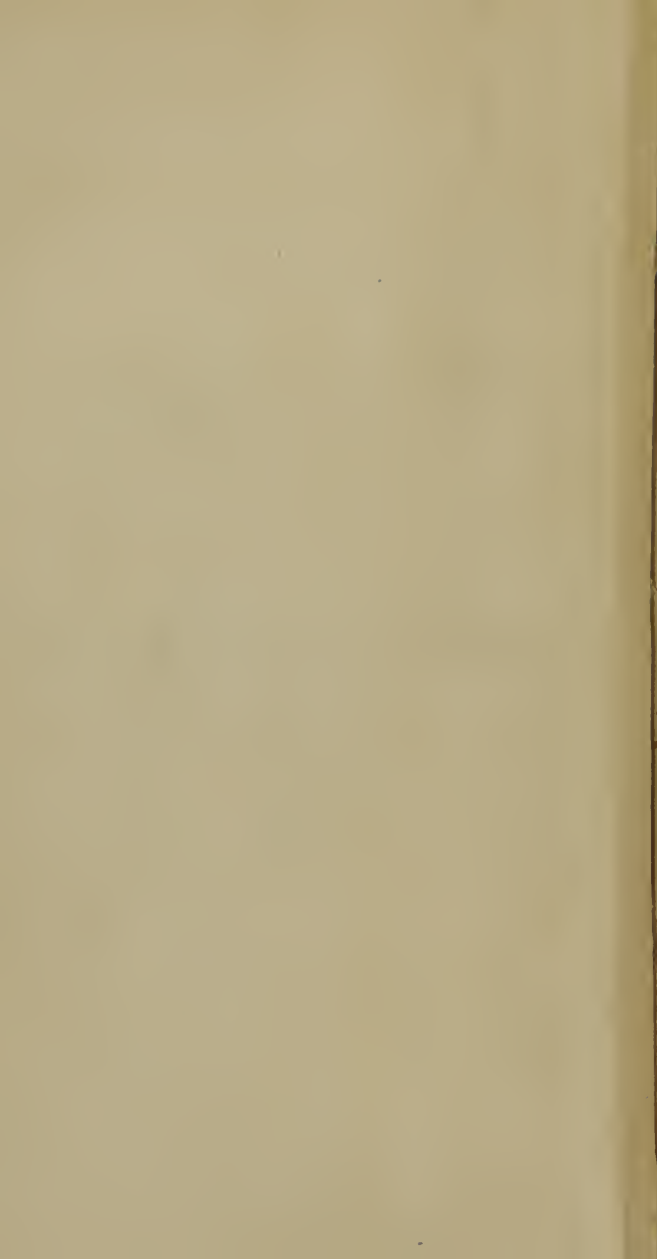
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Practical Observations  
ON  
DISEASES OF CHILDREN,  
COMPREHENDING A DESCRIPTION  
OF  
Complaints & Disorders,  
INCIDENT TO THE  
EARLY STAGES OF LIFE,  
AND  
METHOD OF TREATMENT.

—◆—

110162.

BY GEORGE LOGAN, M. D.

HONORARY MEMBER OF THE MEDICAL SOCIETY OF SOUTH-CAROLINA, AND PHYSICIAN TO THE ORPHAN-HOUSE.

---

"Particular matters of fact, are the undoubted foundations on which our civil and natural knowledge is built; the benefit the understanding makes of them, is to draw from them conclusions, which may be as standing rules of knowledge, and consequently of practice."—Locke.

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*District of South-Carolina.*

\*\*\*\*\* BE IT REMEMBERED, That on the seventeenth day of  
0 0 November, Anno Domini, one thousand eight hundred and  
0 SEAL. 0 twenty-four, and in the forty-ninth year of the Independ-  
0 0 ence of the United States of America, George Logan, de-  
\*\*\*\*\* posited in this office the title of a book, the right whereof he  
claims as proprietor and author, in the words following, to wit:

"Practical Observations on Diseases of Children, comprehending a description of Complaints and Disorders, incident to the early stages of life, and method of treatment. By George Logan, M. D. Honorary Member of the Medical Society of South-Carolina, and Physician to the Orphan-House. Particular matters of fact, are the undoubted foundations on which our civil and natural knowledge is built: the benefit the understanding makes of them, is to draw from them conclusions, which may be as standing rules of knowledge, and consequently, of practice."—*Locke.*

In conformity with the act of Congress of the United States, entitled "An act for the Encouragement of Learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies, during the times therein mentioned," and also an act entitled "An act supplementary to an act, entitled, 'An act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies, during the times therein mentioned', and extending the benefits thereof to the arts of designing, engraving and etching historical and other prints."

JAMES JERVEY,  
*Clerk of the District of South-Carolina.*

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## ERRATA.

- Pages 14, line 32, for "umbelecal" read *umbilical*.  
 21, 7, for "a cold bathing," read *cold bathing*.  
 11, for "mocouium," read *mecouium*.  
 48, 22, for "hærmorrhage," read *hæmorrhage*.  
 59, 2, for "selerolica," read *sclerotica*.  
 for "salphate," read *sulphate*.  
 105, 27, for "two or three grains," read *the half or third*.  
 117, 11, for "produced," read *preceded*.  
 121, 25, for "precursion," read *precursor*.  
 124, 9, for "paroxysm," read *paroxysm*.  
 125, 4, for "has not," read *has*.  
 134, 1, for "an," read *as*.  
 152, 10, for "quurs" read *qu'un*.  
 18, for "hæmoptius," read *hæmoptisis*.  
 155, 19, for "anginosa," read *anginose*.  
 162, 23, after "character," add, *the treatment must be conducted*.  
 168, 24, for "thin acrid and viscid," add, *and sometimes viscid*.  
 195, 1, for "slow indigestion," read *slow digestion*.  
 213, 6, for "secum," read *serum*.

The indulgent reader is requested to correct those that are not above noticed.

## INTRODUCTION.

**T**HE advancement of medical science, is a subject of universal interest. It is contemplated, with joy, by the professor, who, commiserating where he cannot cure, experiences the painful sense of responsibility; by the valetudinarian, whose tedious hours of suffering, are sustained by *that hope*, which is inherent in *life*, and is cherished, while the feeble spark holds out; and by those in health, who from the daily examples of others, are taught to expect, in their turn, afflictions and calamities; but, especially, by the fond mother, who alternately presses, with agonized feelings, the *tender object* of her solicitude, to her breast, and looks up, in confidence, to the beneficent Providence, who directs the means, and controls the issue of events.

A desired perfection would, certainly, be obtained, if writers were strictly influenced by the results of observations, or deductions from conclusive experiments. Unhappily, however, most authors deem it obligatory on them, to bestow something under the imposing form of novelty, or fashion, either wholly hypothetical, or founded on false and erroneous inferences.

It is, indeed, the property of genius, to soar above secondary causes; but, these flights of fancy, too often indulged, tend to idle speculations, and useless disputes of no practical advantage. The beaten track of experience, the sure way, is abandoned, and the theorist plunges into an inextricable labyrinth of error and controversy.

It should never be forgotten, that medicine is not a *speculative* science, but, rather a practical art, in which, perfection is to be acquired by long and continued labour and experience.

Centuries have elapsed, since the most important discoveries in Physiology were made; and, at later periods, many interesting experiments, illustrative of the extent and power of the chylopoetic viscera, without material benefit to the practice of medicine,

While we are led, irresistibly to contemplate the astonishing efficacy of vaccination, in arresting the ravages of that most loathsome disease, *small-pox*, and unite in the tribute of gratitude, due to one of the great benefactors of mankind—the illustrious Jenner! we must, nevertheless, acknowledge, that the outlets of human life, and trophies of mortality, are almost as numerous as in the days of many of his great predecessors, who still have done much to advance the profession, and whose names are held in the highest estimation among sages and philanthropists.

We might apply our remarks to the remote age of Hippocrates, and we shall, by no means, find our expectations realized, in the extent of improvements of the present day. The discriminating judgment of this acute pathologist, by which he determined the *critical days* of disease, is truly inimitable; and when we reflect on the subsequent discoveries, and the enriched state of the *materia medica*, we shall, with amazement and concern, find, that scarcely more has been effected, than a repetition, and *establishment* of many of the doctrines inculcated by physicians of antiquity.

There are, however, charges applied in those days, from which we certainly must exempt practitioners of modern times the chief of which, consists in leaving too much in the hands of nature, when the employment of art was indicated; or, in the use of two feeble remedies, although we may possibly incur the imputation, of sometimes erring in an opposite extreme, and by too energetic a practice, *transcend* the object of our zeal and solicitude. This, however, can never discourage a system of proceeding, justified by circumstances in the opinion of physicians.

The *treatment* of complaints and diseases of children, was long supposed to require but little aid from the physician, being confided to *nurses*, who were deemed sufficiently informed, and fully competent. The office of constant watching, enabled them to ascertain many little disorders of infancy, and to afford relief in the *generality of cases*. Indeed, the obscurity in which diseases of early life are involved, and the difficulty experienced in obtaining sufficient information, to guide the practitioner with satisfaction, to a certain extent countenanced, if it did not excuse the practice.

It was not until an augmented population in the *large cities of Europe*, with an annual loss to these communities, of a disproportionate number of infant subjects, that the tenderest emotions of sympathy, awakened the attention of a wise and humane police to the subject, and the faculty, in particular, to a sense of *duty* too long overlooked.

The *valuable productions* of Drs. Underwood, Armstrong, Willan, Hamilton, and others, are comparatively of recent date, and succeeded this long remissness and silence, on an occasion so deeply interesting to the cause of humanity, where parental anguish claimed assistance, and loudly called for professional exertion.

To dwell on the merits of these works, would be superfluous. It will be sufficient, briefly to say, that they contain the language of truth, founded on the experience and observation of philosophers, and men of science.

A *sense of duty*, and not the ambition of being an author, has prompted me to publish the result of many years experience, in the prosecution of my profession, both in private and public practice, and in reading on the treatment of infantile complaints. In the *arrangement*, those diseases are first introduced, which are observed in early childhood, and, in course such as are evolved at later stages.

To the professional reader, I must apologize for using familiar terms, my wish being to adapt this essay, as well to the use of the practitioner, as to the comprehension of country residents; especially those who, inhabiting our widely extended districts, between the salubrious sea-coast, and "the benign

Hills of Santee," while they await with painful anxiety the distant ride of their physician may render emergencies, obtain some temporary aid.

The principles I have endeavoured to support, are such, I trust, as will be concurred in. It remains but for me to add, in the appropriate and often-quoted sentiments of Horace,

—————" *Si quid, novesti rectius istis,*  
*Candidus imperti ; si non, his utere mecum*—Ep. 6, lib. 1.

**THE AUTHOR.**

# PRACTICAL OBSERVATIONS,

ON

## Diseases of Children.

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### PART I.

#### CHAPTER 1.

#### Infantile Diseases.

---

##### SECTION I.

##### STILL-BORN CHILDREN.

(*Asphyxia.*)

**O**F all the changes in the economy of life, which a child undergoes upon entering into the world, the most important is that of the action of the lungs, as breathing and living are synonymous terms. But various circumstances concur to produce a suspension of this essential process, or an appearance of the death of the infant.

This state of *Asphyxia* is characterised by a *livid or purple colour* of the skin, feeble or imperfect *respiration*, or a total defect of the *pulmonary circulation*.

The most frequent causes are, pressure of the head during preternatural or tedious labour, and long continuance of the child in a narrow pelvis, or compressure of the cord. In either instance, fatal consequences must ensue if seasonable relief is not obtained.

The case may be considered in two points of view : *First*, when the action of respiration has been prevented or delayed, by, perhaps, a weak or torpid condition of the vital powers. *Secondly*, when pulsation in the cord has ceased, and fœtal life seems extinguished, but especially when evidences of putrefaction exist.

In the *first instance*, a prognosis more or less favourable, may be drawn from a knowledge of facts connected with the case occurring *at*, or previous to the birth, which must also influence the *treatment*.

If the child breathes faintly or imperfectly, and the face and surface of the body pale and lean, it is *advisable to delay the division of the cord*—to use *friction*, by rubbing over the breast with the hand—to stimulate the child's nostrils with a feather—and *percussion*, (by slapping the breast, &c.) But the most effectual remedy consists, in *blowing* into the mouth through the barrel of a quill, or in applying the assistant's mouth to the patient's, closing the nostrils, and by blowing, to endeavour, in this manner, to inflate the lungs; and to assist this intention, the thorax, or chest, is to be alternately pressed, and rubbed until evidences of distension, pulmonary action, or respiration, appear—after which the cord may be divided. If, however, the appearance has been otherwise than above stated, or the infant is plump or fleshy, some advantage will be derived from opening one of the umbelical arteries with the point of a lancet

or scissors, and allowing two or three teaspoonsful of blood to flow.

In the *other instance*, when no pulsation is observable in the cord, a longer connection with the placenta will be unavailing, the cord should therefore be divided, the child put into a warm bath, and afterwards wrapped in dry flannel before a *fire*, (if in cold weather) and the means above directed for promoting respiration, adopted. It is wrong to abandon the case as hopeless, or consider the child as past recovery, while *warmth of the body* is perceptible, and no manifest disorganization has taken place.

*Infanticide*.—To detect an atrocity of this character, where there is suspicion of its being perpetrated, is of great importance; and to *determine*, in particular instances, whether a child has been born alive, or ceased to breathe, after delivery, will require the exercise of the greatest judgment.

In courts of judicature, the practitioner is expected to pronounce his opinion with firmness and decision, when the utmost circumspection is necessary. He will act conscientiously in allowing circumstances and facts to possess their full influence over his mind, and always incline to mercy, when these are involved in doubt and obscurity.

A child, when newly born, after the full term of uterogestation, will weigh from six to seven pounds, and will ordinarily measure from twenty to twenty-two inches in length. If he has not breathed longer than thirty hours, and there is no indication of external *disease*, or *violence*—and if a *portion* of the lungs, when removed or placed in water, seems to be distended with

air, or *floats*, the child has unquestionably been *born alive*. When it is further ascertained, that *during delivery* the case was unskillfully managed—that *the cord was not tied*, or negligently treated—that no clothes were in readiness, or other usual preparations for receiving the infant, and an indifference, or manifest dereliction of that anxiety (generally observed on these occasions) in the mother or friends, as well as a disposition to *conceal* the birth, strong suspicions are excited, that the child was destroyed after being born. Such an opinion may, accordingly, be expressed.

When, however, the child has been born *two* or *three* days, and marks of putrescency are discovered, or appearances of unhealthiness, disease or disorder, and preparations *were* made for the reception; above all, when there has been a *marked* degree of *anxiety and distress*, natural on afflicting occurrences, we might, with equal confidence assert, that the child was *still-born*.

There are certain other indications, or phenomena, noticed in particular instances, which will assist in our correct *diagnosis*.

*Death, from strangling or suffocation*.—In this case the eyes are prominent, with marks of inflammation; the *tongue* projects from the *mouth*, which has a frothy saliva about it; the *face* is swelled, and livid, &c.

*Death from Hæmorrhage*.—Whether from the *cord* or *otherwise*, may be known by a blue or pale appearance of the body, as well as of the viscera; the cavities of the heart, and large veins will be found almost destitute of blood, &c.

Other concurring testimony, will confirm or support an opinion, which may be formed in *these cases*—cases

abhorrent to human nature, but may, nevertheless, implicate the reputation of an *innocent person*.

The most prominent diagnostics are here suggested, *such* as are deemed sufficiently applicable to *questions* of medical jurisprudence.

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SECTION II.

TREATMENT AND CLOTHING OF INFANTS.

THAT nature is not competent to the performance of all her works, it would be repugnant to reason or good sense, to doubt, and *impious* to deny, inasmuch as it would be presumptuously arraigning the wisdom of unerring Providence.

Among uncivilized nations the inference is conclusive, that nature accomplishes every thing ; but refinement, luxury, and the adoption of certain fashions, not strictly conformable, have effected *such* changes, as require the interposition of *art* in *bringing into the world*, as well as in *raising* the human offspring.

The navel string should be *tied*, about *three fingers breadth* from the umbilicus ; and it is advisable to make *another ligature*, a little beyond this ; then, with a sharp pair of scissors, divide the cord between them. The child is next to be removed and washed in tepid water and *soap*, if necessary ; and when wiped perfectly dry, received in a flannel or cotton mantle, as the weather, or season, indicates. The portion of navel string attached to the child, must be wrapped in a piece

of soft rag, and covered with a compress of the same, which is to be secured with the moderate pressure of a cotton or flannel roller, passed round the body with such a degree of tightness *only*, as will prevent its slipping, without giving uneasiness.

The infant's dress must be suited to the season; pins are always to be used cautiously; *tape* may be generally substituted. Children's clothes should be put on so as not to confine their limbs, or produce unnecessary pressure on their bodies. Their heads ought not to be kept too warm; and caps, in this climate, may, with advantage, be dispensed with.

A due regard to cleanliness is important, and will most effectually tend to prevent many troublesome complaints of infancy. This advice is peculiarly applicable to the use of *napkins*, which should always be removed as soon as they are soiled with *fæces*, or become wet with urine. They ought never to be put on until perfectly aired and dried; when this is neglected, troublesome chafing and excoriations usually succeed.

A *child* is soon taught a habit of cleanliness, by careful perseverance and diligence in the nurse. He will express, by certain motions, his feelings and desires, earlier than is generally imagined; and will, therefore, be soon accustomed to the use of a basin or pot.

After the second or third month, the cold bath will be found very beneficial; at first, moderately warm, and gradually, colder; it should be used, with but few exceptions, *daily*.

Infantile constitutions will be preserved, or rendered robust, by this management; and it is *generally* proper. There are some delicate, weak and lean chil-

dren, with whom it will not agree ; and as this may easily be perceived, it will be unsafe and hurtful, to pursue a plan with the vain hope of improving the constitution.

Not only experience, but analogy from vegetable life, justify and support a discrimination.

The *clothing* of a child, in *this country*, and *treatment*, are certainly objects worthy of our greatest attention inasmuch as diseases, at a more advanced age, may be materially influenced, accelerated, or their foundations laid, by incautious management in early life. The constitution may receive an assault, from which it recovers slowly, and leaves a predisposition to future suffering.

We have here, especially in prospective, *Catarrh* and *Pneumonia*, which too often eventuate, in our Atlantic cities, in Pulmonary Consumption. The prevailing humidity and versatility of climate, would furnish a solution of our inquiries, if they were not of too general application ; and in the concatenation of causes, we are irresistibly induced to look back to an early period of the subject's existence for an elucidation.

It is not, surely, an unprofitable inquiry, whether such an evil may not proceed from a neglect or deficiency of *clothing*, or the stamen is thus impaired, and sustains a shock affecting future growth and vigour.

While *too much* clothing will therefore prove hurtful and debilitating, *a defect* of it will be not less prejudicial. Dr. Beddoes has asserted it as his belief, that the greatest mortality in England is among those children, where attempts were made to bring them up very hardy, and it has consequently been ascertained, that at least

one-third of the poor born in Great Britain, die during infancy.

It is obvious, that the vital warmth should be carefully preserved, when the infant is lean and delicate. By far the greatest proportion, however, are born fat and healthy, and require, in mild climates, little or no adventitious covering. *Divine beneficence* is here conspicuously displayed from the dawn of life. *Plumpness*, while it conduces to the infant's beauty, *retains*, by a non-conducting property, that heat of body so essential to good health; but, *when deficient*, our aid is necessary.

The trees of the forest are protected by a covering of bark—the birds of the air have their plumage—animals an ample coat of hair or fur; but man, *superior* in creation, is endowed with the faculty of *reason*, to assist and guide him in adapting his *dress*, and that of his offspring, to every climate and season, whether his lot be cast in the rigours of a polar region, or under the fervors of a tropical sky.

The infant constitution ought certainly to be consulted; in peculiar cases, the early use of flannel is serviceable, especially during winter, the cool spring, or autumnal months; but the *constant use* of this article of dress must enervate, and proves prejudicial; it is therefore proper to remove or suspend it, when the warm season sets in.

The happiest effects in this climate, are produced by the early use of the *cold bath*; when the temperature of the atmosphere is above 80 degrees of Fahrenheit's thermometer, it may be employed with advantage, even with very young children; it wafts off the superabun-

dant and accumulated heat of the body—braces the constitution, improves the appetite, complexion, &c.; while, in other instances, langour, debility, and paleness of countenance, mark the effects of prostrating heat and predispose to many diseases.

There are, as already observed, exceptions; but these are few indeed, to the use of a cold bathing, especially in summer; while a glow and increasing sprightliness succeed, it cannot fail to be salutary, and ought to be continued.

The suitable accommodation of dress, with regular and careful attention to washing and cleanliness, are indispensable to the preservation of health, and in raising children.

---

### SECTION III.

## ON NOURISHMENT.

It has become almost an established custom, to administer something to purge off the *moconium* immediately after the birth; the expediency of this practice is not only questionable, but revolting to nature. If the child is put to the breast early, the *secretion of milk* is promoted, and its first operation on the stomach and bowels is sufficiently apparent.

As soon as the mother has sufficiently rested, or taken a little sleep, the child should be laid by her, and attempts made to induce it to suck. There is something in the smell of the milk, which favours the intention; after a few trials the child will take the *nipple*;

which, by this early proceeding, acquires a better or more convenient form than when delayed, and prevents congestions in the mammillary vessels, and other consequent disorders, which are painful and distressing. Nothing but the delicate health of the mother ought to prevent its adoption.

Should the meconium not be *freely* voided in the course of ten or twelve hours, and the child seem uneasy, a teaspoonful or two of cold expressed castor oil, may be given to him, taking care not to increase the dose, unless; after several hours, it should seem necessary. Although children, when somewhat older, bear purgatives better than could, apriori, be expected, it will be dangerous, at this very tender age, to excite the peristaltic action of the bowels too *strongly*.

The functions of the liver soon commence; and, in some instances, the secretion of bile is so redundant, that an absorption takes place, which discovers itself in an *icteric* tinge called *gum*, attended with drowsiness. This morbid appearance of the complexion will elsewhere be noticed. A repetition of castor oil, or some gentle *laxative*, as about one drachm of Epsom salts in fennel-seed tea, will be proper. The custom of administering carminatives, or cordials to young subjects, on slight occasions, is unjustifiable and reprehensible, and ought not to be allowed; for the wisest of purposes, the circulation of the blood in an infant is rapid. When newly born, the pulse beats about 130 strokes in a minute, and therefore cannot be accelerated without manifest danger.

In *bringing up* a child, the most proper *nutriment* is the mother's *milk*. To raise by *proxy*, can neither be

countenanced by *reason* or *analogy*. Is is the peculiar province of the mother. What office can be more conformable to nature, in unison with affectionate feelings, or more delightful, than to nurse and suckle her infant ?

“ No voice so sweet attunes his cares to rest ;

“ So soft, no pillow as his mother’s breast ”

Or, in the eloquent language of an ancient philosopher—“ Quod est enim hoc, contra naturam imperfectum atque dimidiatum matris genus, peperisse, ac statim absese abjicere ”—“ vinculum illud coagulum que animi atque amoris, quoparentes cum filiis natura consociat, interscindunt.”

Should any constitutional or other causes, interrupt or prevent this, a kind, careful and healthy nurse must be procured ; an over-fastidiousness, however, in the choice, is culpable. It is true, among the ancients, Diodorus relates, that the *intemperance* of Nero, and the *sanguinary* character of Caligula, were imbibed from their *nurses* ; but this was the age of heathenish superstition. The antiquated idea of evil propensities and habits, being received in this manner, is ridiculous, and has now but few advocates.

*Human* milk is best adapted to the power of strength of the infant organs of digestion ; it contains the saccharine principle in greater abundance than any animal except the Mare ; the whey is less liable to fermentation, or to be coagulated.

When the child cannot be supported by the breast, the food intended for it, should be made to resemble

*human milk* as much as possible, in all its properties. He should be fed by means of a *sucking bottle*, or from the spout of a tea-pot, (or some vessel of that kind,) a piece of soft cloth being previously tied over it and *perforated*. The child will soon acquire the habit of sucking his *nourishment* from these. The gradual manner in which it is thus conveyed into the stomach, the *pressure* of the mouth upon the bottle, &c. in imitation of the nipple, affords time for a *necessary* flow of saliva; consequently, digestion is more complete, and the child is not so frequently distressed with griping and pain, as when the spoon is employed.

The food ought never to be made in large quantities at a time, especially in summer, as it will ferment, become sour, and acquire unwholesome properties, and produce colicky pains, flatulencies and other disorders.

Equal quantities of thin, well-boiled rice, corn gruel, or barley water, and fresh cow's milk, sweetened sparingly with loaf sugar, will answer for the first three or four months; after which, a little light broth may now and then be added; bread or biscuit, carefully softened down with milk and water and sweetened, or hommony, &c.

The child should be fed at regular hours; and this rule may be observed when it is also wholly brought up at the breast. The *health* of the mother, as well as the child's, will be better preserved by this system.

Notwithstanding the success which often attends the *mode* of nourishing children, above described, it must be *discontinued* when they do not seem to thrive under it. This is ascertained to be the case when they be-

come fretful, with disordered bowels, the stools being loose, frequent and foetid, and the food undigested.

Should suitable medicine fail in correcting or removing these complaints, there ought to be no delay in putting an afflicted child to the breast again, or obtaining a sufficient nurse—a neglect of this will be fatal to it.

After the fifth or sixth month, as the strength of constitution increases, some latitude may be allowed in nutriment, should the mother's health require this aid. There can, however, be nothing more wholesome than homony, or soaked biscuit. Many fine, healthy children, have been *exclusively* raised in this manner. It is always proper to examine the diet, to see that it is well boiled or prepared, and not sour. When an infant is to be fed, the nourishment should not be given thick, or in large quantities at a time.

*Weakly* children will require nursing longer than the fat and healthy. A child may be suckled from ten to thirteen months, if the mother's constitution permits; but no precise time for *weaning* can be laid down, as this must be influenced by a variety of circumstances. It will certainly be improper, when the child has any complaint connected with dentition, and ought not generally to be attempted in *this country*, during the months of *April* and *May*; *previous* to this season, or *later*, would be advisable, as cholera and bowel complaints are then most prevalent.

A mistaken idea has prevailed, that prejudicial effects result from keeping a child long at the breast; the reverse of this is certainly the *fact*. Many inconveniences and complaints succeed premature weaning.

The practice of exciting disgusting associations, by putting aloes, &c. on the nipple, to prevent a child's sucking, is dangerous and reprehensible; a little care and resolution, for a few days, will overcome difficulties, and seldom fail in establishing a new habit.

It is customary, when a child is well grown, to give it a bone of chicken or animal food; but until it has teeth to masticate with, this must be cautiously done. It may be choked by swallowing large pieces, or the stomach may become oppressed, or disordered.

The great importance of *cleanliness*, which has been adverted to, cannot be too strongly recommended, and faithfully observed. Children should be regularly combed and washed, and their heads kept clean, to insure good health, and exemption from a number of complaints and disorders.

The constitution will not be materially benefitted, by the adoption of any system of living differing from that which is established, and appears to suit. Attempts to render children *hardy*, are often productive of distressing consequences of a permanent nature, and other (or new) habits, when they are confirmed, cannot be departed from in adult life, without bad effects.

A *child*, when six or seven months old, may be encouraged in attempts to *creep*; with this design all unnecessary restraints are to be removed; its clothes should be shortened, and the nurse attentive, to prevent its falling. As soon as its limbs acquire sufficient strength, it should be taught to walk, and not confined to the house, especially when the weather is fine and dry. Fresh *air*, out of doors, tends to render it robust and healthy.

## SECTION IV.

YELLOW GUM, (*Icterus Infantum.*)

THIS disease has been noticed as occurring soon after the birth, when the first copious secretion of bile takes place, which is absorbed to a certain extent, and thrown upon the surface. It may be aggravated by meconium impacted in the bowels, and other obstructions; but the causes are generally of a transient nature, and the complaint exists as a mild form of jaundice. No anxiety is ordinarily produced by it, and it soon wears off. A laxative dose, of one or two teaspoonsful of castor oil, or a little Epsom salts, or an injection of warm water, with salt and molasses, or soap and water, will answer the purpose. Dr. *Underwood's* excellent advice, of administering a gentle emetic, consisting of a few grains of *ipecacuanha*, or antimonial wine, ought not to be neglected when the disease continues. This treatment will effectually remove the yellowness.

It has often been remarked, that when this unpleasant appearance subsides, the infant's constitution and complexion speedily improve, and seem better than previously. This is considered, however, by some writers, as an "innocent delusion."

## SECTION V.

RED GUM, (*Strophilus Intertinctus*.)

THE red gum bears a resemblance to *measles*, but may be distinguished by an absence of catarrhal symptoms and fever, and the system is not materially disturbed. It consists of numerous *red pimples* on the chest and body; those which break out on other parts are extremely small, resembling specks with inflamed bases, which are most conspicuous, when the infant is very young.

These minute papulæ are clavated above the cuticle, and contain a clear fluid of no determinate duration; in which respect, the disorder again differs from measles.

The eruption sometimes appears in clusters or patches\* about the arms, and is now and then found to terminate in a slight exfoliation of the skin, but does not dry off as in the disease abovementioned.

This infantile disease is subject to some variety, and usually discovers itself a few days after the birth; in most instances before the second month, and seems to be induced by acid acrimony and disturbance in the viscera, subservient to digestion. The food or milk, probably does not agree with the child; and, therefore, should be changed.

\* It is called by the French practitioners, "Efflorescence benigne."

In those cases, however attended with pain or uneasiness of the stomach and bowels, and when the eruption changes colour, or is *repelled*, the following treatment is proper:—Mix six or eight grains of ipecacuanha in two ounces of warm water; of which, two teaspoonsful are to be given every fifteen minutes, until the child vomits two or three times. After the operation, one or two drops of laudanum may be administered, mixed with a small quantity of fennel-seed tea, sweetened, and the warm bath.

On the succeeding day, the following laxative mixture may be necessary:—Take of Epsom salts one drachm, carbonate of magnesia twenty grains, mixed with two ounces of warm water; give two or three teaspoonsful every hour, or oftener, until physical stools are produced. The cure may be accomplished by administering now and then small doses of magnesia, with or without a grain or two of rhubarb, as the state of the bowels indicates; or a spoonful of lime water, with fresh milk, two or three times a day if the stools are thin, sour (or green.)

When the child is debilitated, two or three drops of spirits of hartshorn, or compound spirits of ammonia, may be added. A due regard to cleanliness must be observed, and cold, damp air, guarded against.

When irritation and itching become troublesome, the parts are to be dusted with fine starch or flour.

## SECTION VI.

THRUSH, (*Aphæ Infantum.*)

THE thrush, as an *original* disease, usually occurs within the month, and is seldom attended with fever. It appears in white specks on the tongue, lips, fauces, and insides of the cheeks, extending sometimes down to the œsophagus, resembling *particles* of curds. These acquire, after a time, a yellowish appearance, and then dry off. They are, in some cases, renewed two or three times. These succeeding crops of thrush, are justly remarked by Dr. Armstrong, to be *thicker* than the first, “and not so white.”

The child’s mouth, at first, becomes hot, and the intelligent nurse, Dr. Bateman observes, is thus early apprised of the approach of the disorder, as the *nipple* is often excoriated by the eruption. It may, in this manner, be a means of communicating the complaint to another child, if suckled at that time, and, therefore, convey an idea of *contagion*.

In a few cases the aphthæ spread, to the trachea, occasioning uneasy respiration and cough, or croupish symptoms.

The child’s tongue, in some instances, has been observed so severely affected by these sores, as to prevent sucking. When vomiting and copious stools succeed, the case becomes alarming.

In most cases, the thrush of infants is more distressing and troublesome, than serious or dangerous, and the

disordered bowels *attending*, the *effect* of indigestion and acidity.

A gentle emetic of ipecacuanha will, in the first instance, be advisable; after which a purging mixture of two or *three drachms* of *Glauber's* salt, with one scruple of magnesia, in two ounces of fennel-seed tea, may be given in doses of two or three teaspoonsful every hour, until the stools loose their green colour or *foetid* smell, and become physical. This mixture ought not to be administered until the day after the emetic. A mixture of magnesia, given in doses, at distant intervals, (every two or three hours) will sometimes answer; but when the stools continue thin, and are frequent, the prepared chalk, or crab's eyes, should be substituted for magnesia. The addition of one or two grains of rhubarb, will occasionally be necessary in affecting a change in the passages, and subsequently restoring tone to the bowels.

When the child draws up its legs, and seems in pain, add one or two drops of laudanum to the chalk *mixture*; administer two or three teaspoonsful every hour, and employ the warm bath.

The specks or eruptions in the mouth, may be touched or covered with borax, reduced to a fine powder, and mixed with an equal part of loaf sugar; or a little *of it* may be put into the child's mouth, when it will lick it about with its tongue; and, in this manner, the aphthæ will be covered with some of it. *This* has been found the most useful application. Washing with a mop-stick is unnecessary and painful.

In severe forms of this complaint, the bowels are excoriated by acid stools. In these cases, after evacuat-

ing as directed, the *Peruvian bark*, in *decoction* with *magnesia* or *crab's eyes*, will be serviceable. The mouth, &c. should also be washed with the decoction; to which, a few drops of tincture of *myrrh* may be added. Lime-water and milk will also be beneficial.

When the *rectum* is affected, a lotion, or injection of the bark, should be employed.

The child's strength must be supported with thin arrow-root, barley, rice, or corn gruel, with milk, and by changing the nurse, should such a measure seem necessary.

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#### SECTION VII.

### EXCORIATIONS OF THE NAVEL, &c

*Excoriations* of the *navel*, behind the *ears*, &c. are common among children; the latter is rather more frequent during dentition.

These affections commonly proceed from the neglect of cleanliness, and are more troublesome than dangerous.

They will be removed by washing the parts well with warm water and soap, and afterwards dusting with calamine in fine powder; or, by the use of some discutient lotion as lime-water, a solution of sugar of lead in water, or white vitriol. Should there be ulcerations, these may be dressed with litharge ointment, spread on soft linen rag.

When they assume an ugly appearance, which, in a few cases, has been noticed, a lotion of camphorated

spirits will be proper ; and the bowels should be kept sufficiently open, with a saline purging mixture as in the foregoing instance, (see Sect. 6,) or two or three grains of calomel may be administered in a little syrup.

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## SECTION VIII.

## SPASMODIC TWITCHING, &amp;c.

THERE are sometimes twitchings, or spasmodic contractions observed about the mouth of the infant while it sleeps ; at other times, it moans, starts, and seems in pain ; but, now and then the features will assume a smile.

These various appearances, or expressions of uneasiness, have received the appellation of *inward fits*, and proceed from wind in the stomach and bowels ; consequently, disturbance in digestion. The child's *food* will be found, in these cases, not to agree with it, or it has been improperly exhibited.

The magnesia mixture with fennel or aniseed tea, will remove this uneasiness. The stomach and body ought to be gently rubbed with a warm hand. Should the treatment not prove sufficient, an emetic of ipecacuanha will be proper ; after which, the bowels, if necessary, are to be opened with castor oil.

## SECTION XIX.

## LOCKED-JAW OF INFANTS.

*(Trismus Nascentium.)*

THERE are but few infantile diseases in Carolina more fatal than *trismus*. It is of the same character with *tetanus* of adults, common in tropical and warm climates, but *not unknown* in other countries, especially on the Mediterranean coasts, as well as in higher latitudes.

It attacks children about the close of the first week, and seldom after the ninth day, and is commonly believed to proceed from unskilful management of the umbelical cord.

Dr. Clark thinks it originates from smoky apartments and impure atmosphere.

Although in many the disease occurs, when the navel has not healed up properly, and looks inflamed and ulcerated, I have attended where no such circumstances influenced the case.

A want of cleanliness, a neglect in changing wet napkins, laying the child to sleep in a damp place, or taking cold, and constipated bowels, are among the ordinary exciting causes.

This is confirmed by the *fact*, that children, born of persons in low conditions of life, and of people of colour, are its most frequent victims.

The prevailing *irritability* of the *infant system*, predisposes to spasm, from inconsiderable causes. To ob-

viate these, will be therefore of importance, and the neglect inexcusable, inasmuch as the means are within the reach of most persons, however limited their circumstances.

The pulse is not much disturbed in this disease. The little subject moans, and seems uneasy; *twitchings* of the muscles of the face, jaws, and temples are observed; a *tension* of those of the neck and back succeed; these soon become stronger; at length, the child drops the nipple and is unable to suck; the bowels are constipated and convulsions supervene. If effectual relief be not speedily obtained, it expires, an event not unfrequent within fifty hours of the attack.

The child's bowels, in the first instance, must be freely opened, by administering one or two teaspoonsful of castor oil, and repeating the dose every three hours, until the desired effect is produced. Enemas\* of lukewarm water, with soap, may be employed as auxiliaries in assisting the medicine, and by their warmth, relaxing the tension of the abdomen. If the *navel* has not *healed*, and looks inflamed, milk and bread poultices, mixed with two or three drops of oil of turpentine, should be applied with a slight degree of warmth, to the part, and afterwards mild dressings of oil and wax. The neck under the jaws, and along the course of the spine, ought frequently to be rubbed with a piece of flannel, moistened with *oil* of amber, turpentine, or laudanum.

Trismus may sometimes be relieved, after the bowels are moderately opened by a gentle emetic mixture, as before directed, of ipecacuanha, or eight or ten drops of

\* Glysters.

antimonial wine, repeated at short intervals. The vomiting induces a favorable relaxation, and prepares the system better for anodynes or anti-spasmodics, which will become necessary.

Dr. Duncan, of Jamaica, advises *blisters* near the jaws, (under the maxillæ) or on the lateral parts of the neck, which I have found serviceable.

Should the spasms seem to resist these remedies, the following mixture may be given when practicable:— Take of laudanum *five* drops, compound spirit of ammonia *ten* drops, infusion of fennel or anise seeds *two* ounces; mix them; one teaspoonful to be administered every thirty or forty minuets, persevering also in the external remedies, and injections, now and then, of warm soap and water.



## SECTION X.

### ERYSIPELAS, (*Infantum.*)

THIS disease also receives the appellation of "*St. Anthony's fire.*" There are some varieties described by writers.

The Erysipelas of *infancy* occurs a few days after the birth, and rarely beyond the second or third month. It sometimes attacks suddenly, and consists of a diffused *swelling* and *redness* about the hands and feet, and not unfrequently on the neck and face. The parts affected are slightly elevated; on *pressure* with the finger the *redness* disappears, "leaving a white spot,"

but resumes the former appearance again. It is accompanied with much heat and occasional fever, succeeded by vesicles, which break and terminate in suppuration and ugly scabs.

The characteristic marks correspond with the varieties observed in adults; occasionally the colour is that of the rose or bright red, the skin clear and shining, attended in these subjects with a "pungent pain."

The disease seems to be seated under the cuticle; and in mild cases, the *vesicles*, after six or eight days, dry up. In the worst species, the brain becomes affected with delirium, &c. and the parts diseased are gangrenous.

The causes producing Erysipelas are, too great exposure to heat of the fire, &c.—to damp air, improper food, and consequent disorder of the chylopoetic viscera; morbid state of the bile; the action of poisons, wounds, contusions, &c.

A gentle laxative mixture will, at first, be proper, consisting of Epsom salts, with magnesia, or two grains of calomel, which should be repeated in four or five hours, if stools are not produced. On the succeeding day, an emetic of ipecacuanha, if the stomach is disordered, and the parts inflamed dusted with fine chalk, flour, or calamine powder. In the more severe kinds, camphorated spirits may be applied, and ammonia internally in doses of three or four grains, every three or four hours. Where there is a tendency to sphacelus, the decoction of Peruvian bark must be administered, and the strength supported with wine whey.

If there is a determination to the brain, blisters to the back, (between the shoulders) and on the arms, are ne-

cessary. The swelling, &c. sometimes attacks the body, thighs and legs, and rapidly spreads. acquiring a livid or purple appearance; the genitals also become affected. This form of the disease frequently eventuates unfavourably.

## CHAPTER II.

## Congenite Diseases and Affections.

## SECTION I.

## IMPERFORATED ANUS.

**T**HIS deplorable congenite defect, is observed in various degrees.

Although there may be an *external* appearance of perfection in the Anus, should meconium or fœces be retained longer than ten or twelve hours, an oiled bougie, or piece of thin, soft whalebone, covered with rag, may be cautiously introduced up the rectum. If, on being withdrawn, these appear soiled, the obstruction is but temporary, and will be removed by administering a little *castor oil*, or some mild laxative.

But, should any resistance be met with, in introducing the above means of inspecting; or, if they do not appear soiled, we are then assured that the gut is closed, at the place of resistance which has been reached.

When the defect is external, an *incision* must be made with a lancet, at the part where the Anus is ordinarily met with, and carried about an inch in depth, if necessary; but, if this does not meet with, or open into

the rectum, which must be ascertained by inserting a bougie, or blunt probe, the incision should be carried deeper, in the direction of the rectum, and be kept from uniting again, by the continued use of bougie plasters, rolled into a proper thickness.

In those instances where an incision cannot be made to reach the part obliterated, there remains no alternative, but that of making an artificial anus, by dissecting down from the left iliac region to the colon, opening it, and securing the sides to the aperture or wound of the integuments, by ligatures, until a union takes place.

The *Urethra* in males, and the *Vagina* and *Hymen* in females, are sometimes impervious at birth, and are to be managed in a corresponding manner.

In the foregoing cases, bougies, carefully employed, will afford relief; but, when malconformation is very great, puncture of the bladder becomes indispensable. Consult Benjamin Bell's *System of Surgery*, vol. 6.



## SECTION II.

### HARE LIP, (*Labia Leporina*.)

MALFORMATION of the mouth is not an uncommon occurrence. There are instances of vacancies extending through the palate bones to the *uvula*; and cases are on record, in which these bones are wanting.

When a child is born with a fissure, or longitudinal division of the upper lip, the most common form, the blemish is thought to resemble the animal, from which

it derives the appellation. This aperture is sometimes double, with an intervening portion of lip.

The condition of the mouth described, is not only disagreeable, but it deprives the subject, in a great measure, of the power of receiving nourishment ; and it is expedient to adopt some method of counteracting the inconvenience. If the defect is not seasonably removed, it will also prove a material impediment to speech.

However distressing, and even serious this deformity may appear, it can happily, in most instances, be removed, when the defect is confined to the lips only, by an *operation*, which generally succeeds very well.

This may be performed about the third month, or some time previous to dentition. The liability to convulsions is not then as great, as at an earlier or later period ; there is less resistance made, and the cicatrix will be smaller.

The operation consists in reducing the fissure to the exact state of a recently incised wound ; by cutting off all the pulpy or callous marginal parts, and removing any piece of flesh or lip which interposes ; and lastly, in retaining the divided edges of the wound in such a manner, as will enable a union, by the first *intention*, to take place. For this last purpose, the cautious application of adhesive strips, supported by a suitable bandage, has been adopted and recommended by an eminent surgeon. But, this method will only answer while the subject is in infancy. When the child is older, the plan by the twisted suture is most effectual, and ought to be adopted.

The operation being determined on, the patient is to be conveniently situated and supported. A flat piece of whalebone, stout pasteboard, or blade of a spatula,

must be placed between the side of the lip to be first divided and the gum; the lip is then to be stretched down upon it, and the edge accurately and neatly cut off with a sharp knife, so that the pulpy or cuticular margin, from below up to the apex, is sufficiently removed with one sweep of the instrument. Any interposing piece of lip is next to be cut off. The fienum connecting this portion of lip, to the gum beneath, will require to be clipt. The callous margin, on the opposite side of the fissure, is now to be divided, or cut, with the same neatness and precision as the first. These excisions, when completed, produce a recent wound, resembling an inverted V.

In order that the two edges, when approximated, may exactly correspond, and form in coalescing as neat a cicatrix as possible, the divided edges are to be brought into close and exact contact, and retained in this manner by inserting through them two *silver pins*, with steel points; one of these must be pushed about the sixth of an inch from the margin of the wound on one side, and going to the depth of about two-thirds of the substance of the lip; then passing through the margin, the pin is forced through at an equal distance opposite to where it was entered. The second pin is to be introduced at such a distance from the first, as will be found most completely to accomplish the indication, so that the union may be formed with the utmost degree of exactness. The *first* pin is to be inserted through the edges of the wound, near the under part or termination of the lip; the second at an equal distance from the first, and the apex, or superior point of the wound.

When the pins have been introduced as directed, and the parts are supported in contact, thread, of sufficient strength, well waxed, must be wound around the ends of the pins passing alternately, transversely and obliquely, so as to describe the figure of 8; the edges of the wound are thus retained with firmness. Any effusion of blood, during the use of the knife, will cease when the pins are secured. When this operation is completed, the points of the pins, which are constructed to *unscrew*, should be removed, a compress of soft linen laid over the wound, and a double-headed roller bandage applied.

Five or six drops of laudanum, may be given at bed time, in a little water.

In the course of five or six days, the pins may, with ease, be removed, and the wound treated with light dressings. Consult Benjamin Bell's System of Surgery, vol. 4th, Sharp, Dessault, &c.



### SECTION III.

## CLOVEN SPINE.

(*Spina Bifida, Hydro Rachitis.*)

THE records of Medicine, or Surgery, do not furnish a more deplorable disease than this. It consists in a defective state of the *vertebral column*. In most cases the defect is in the *lumbar*; sometimes, however, in the *dorsal* and the *cervical* vertebræ.

In this morbid and incomplete state of the spine, the imperfect ossification is supplied by a tumor over the part containing a *fluid*. It is now and then found connected with *hydrocephalus internus*; and the disease has been thought to originate here, and the fluid to descend through the spinal canal, to the part where it has lodged, eroding the contiguous bones, and constituting the *spina bifida*.

It will readily be conceived, that *it* rarely admits of a cure, although the palliative plan has been so successfully conducted, that there are instances recorded, of subjects being supported under it for many years; in one case the patient survived the age of puberty.

The *fluid* contained in the tumor is serous, but oftener gelatinous, sometimes streaked with blood. On pressing over the part, the continuity of spine is perceived to be interrupted, while the spinous processes of the next vertebræ are distinctly felt.

As the death of the child has been generally accelerated by opening the tumour, it is seldom attempted. The practice, however, of gradually evacuating the contents, was introduced about fifteen years since. This was effected by puncturing with a needle; and the subsequent careful application of a truss and bandage, with a view to afford support and ultimate coalescing of the sides of the sack or tumour. This has been advised as a *radical* cure; and as a *palliative*, a compress or truss, (without puncture.) Consult Benjamin Bell's System of Surgery; Abernethy's; Astley Cooper in the Med. Ch. Transactions, L. vol 2d.

The external applications in common use, are, ointments prepared of cerussa acetata; letharge, or the

other preparations of lead ; or lotions, with camphorated spirits ; of zinc, as solutions of white vitriol ; also, vinegar, &c.

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## SECTION IV.

## BLEMISHES, SPOTS, OR MARKS.

(*Nevi Materni.*)

CHILDREN are not unfrequently born without *marks*, spots, tumours, or excrescences ; in and by far the greatest number of cases which are met with, but little attention and assistance are required. Should they, however, acquire any extent or magnitude, efficient remedies, when practicable, ought to be employed.

*Moles*, or *tumours*, which rise above the skin and become troublesome, may be safely and entirely removed with a knife, without inconvenience

Marks of *fruit*, or of certain *animals*, are thought to be produced by a strong excitement on the mind of the mother during *gestation*. These unfortunate impressions, occasioning indelible marks, can, however, only be made during an early stage of foetal life.

Deficiencies in fingers, toes, hands, feet, &c. or where these are superfluous, deformed, &c. monsters, and *lusus naturæ*, have been subjects of *amusing*, but unprofitable speculations ; useless, because they are irremediable evils of *embriotic* origin, perhaps of the first or second months. Unexpected and casual shocks, con-

veyed through the mind of a parent, can, if at all, only operate at this period ; and they are, for the most part, unavoidable.

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SECTION V.

UMBELICAL HERNIA, (*Exompholos.*)

A PROTRUSION of the bowels at the navel, when it is large, at or soon after birth, constitutes this disease. It most frequently occurs about the third or fourth month. A radical cure can sometimes be effected, by efficient but cautious COMPRESSION. For this purpose, a soft cushion, suited to the part, must be supported and retained by a wide bandage of cotton or linen, previously reducing the protruded part by *gentle pressure*.

The opening at the umbilicus may contract and be obliterated, by skilful treatment, during *infancy*, but not in the adult stage.

Should the foregoing method fail, the intestine must be reduced as directed, and the flaccid sack tied with a *ligature*. If done with exactness, this process is eligible and expeditious ; the *adhesion* of the side of the sack is complete, and a subsequent rupture thus obviated.

A large portion of the intestines occasionally protrudes, with a diseased state or deficiency of the abdominal integuments or parietes. Under these afflicting circumstances, a reduction of the rupture is difficult,

and will avail but little, as the child cannot long survive.

Hernial affections, generally, are to be managed on similar principles; that is to say, by careful reduction, and the subsequent use of a compress or truss. Consult Benjamin Bell; Œuvres Chirurgique de Desault; Tom 2, &c.

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SECTION VI.

SWELLINGS OF THE SCALP.

PRÆTERNATURAL shape and swellings of the head, sometimes succeed tedious labour. An apparent lapping of the bones is not uncommon, or a seeming deficiency with a tumid state of the scalp.

In the first instance, *gentle* pressure, made by passing the hand around the scalp, two or three times a day, will remove these, and tend to mould the head into a natural shape.

Swellings of the scalp, should be treated with spirituous or camphorated embrocations, applied by means of cloths dipped in them. By persisting in this plan, any effused fluid will be absorbed.

*Hydrocephalus.* (See chap. 4, sect. 6th.)

## SECTION VII.

## TONGUE-TIED, &amp;c.

THIS congenite affection is very frequently met with, but, in many instances so slight, as to require no assistance from the surgeon. Mr. Moss, surgeon to the Lying-in-Charity, Liverpool, asserts, that "one out of three or four children are tongue-tied, more or less." It is certain, that mothers and nurses apprehend its existence as an impediment, oftener than circumstances justify.

It will be discovered by the *frenum* or membrane, attaching the *tongue* to the lower part of the mouth, stretching too far forward to its apex ; therefore, confining it in its use. The *child* is observed to drop the nipple, and clucks in a singular manner.

This limited motion of the tongue will also prevent its speaking distinctly as it grows up, if not remedied.

The operation, when necessary, consists in liberating the tongue, by dividing this membrane, as far as it can be done, with a pair of blunt-pointed scissors. The *raninal* artery lies near the attachment of the *frenum*, and is, therefore, in danger of being wounded ; dreadful instances of which are recorded ; generally speaking, the operation is simple. Should any hæmorrhage ensue, it is to be suppressed by compression with dry lint, or the application of caustic.

The operation ought never to be performed while the child sucks a well-shaped nipple ; or the *finger*, previously dipped in milk, sweetened with a little sugar,

and put into its mouth. These will afford satisfactory evidences of the non-existence of the case.

SECTION VIII.

DISTORTED FEET, &c.

SUBJECTS born with their feet turned inward, are called *vari*; when in the outward direction, *valgi*. Distortions of the *first* kind, are most commonly met with.

The early and careful application of splints, ingeniously adapted, so as to counteract the distortion, may be employed with advantage. These should be so placed as to prevent the parts in which they are in contact, from suffering by unequal pressure, and ought therefore to be carefully examined. To support the splints, suitable bandages are necessary, renewing them from time to time. Beneficial effects can alone be expected, by a long perseverance in these means.

Children are also sometimes born with deformed *hands*; the treatment must be conducted on the foregoing principles.

## SECTION IX.

## DEFECTION IN THE HEART.

THE structure of the fœtal heart may continue—there may be an imperfect closure of the *foramen ovale*, after the child is born. This is manifested by a dark, unhealthy complexion, livid appearance of the lips, uneasy respiration, asthmatic cough. The last is always a dangerous symptom.

Medical aid will avail but little in these cases, as the subjects cannot be expected to recover, although they are sometimes known to survive the second year, or longer.

The diet of the child must be carefully directed, and the state of the bowels attended to; costiveness should be obviated; change of climate may be tried. The child ought not to be allowed to fret.



## SECTION X.

## HYDROCELE

*Of the Tunica Communis, and of the Tunica Vaginalis Testis.*

INFANTS are frequently afflicted with the *former*, which is an *encysted* tumour, consisting of water, contained in the common membrane of the testis, and or-

ordinarily occupies the middle space between the testicle and groin.

In the other case, the water is contained between the testicle and vaginal coat. Children are sometimes born with it.

In the first instance, the disease sometimes spontaneously disappears, or may be removed by warm fomentations, or the application of some astringent lotion, as the solution of muriate of ammoniac,\* sugar of lead and white vitriol, brandy and water, &c. ; when these fail, the watery contents should be evacuated by puncture with a lancet. A similar process may be pursued when the effusion is lodged beneath the vaginal coat. When puncture, with a lancet or trocar,† has been adopted, the return of the watery collection may be effectually prevented by injecting port wine, or brandy and water, into the sack, or between the coats where the fluid was contained.

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SECTION XI.

MILK IN THE BREASTS, &c.

IT is not uncommon to observe, a few days after the birth, the breast of the infant somewhat swollen, with a milky secretion. It is unnecessary and improper to squeeze this out. The swelling will, in a little time, disperse. No external, or other remedies, are required.

\* Salt of ammoniac.

† Vide Pott on Hydrocele, Sir James Earle, &c.

## CHAPTER III.

## Constitutional Diacases.

## SECTION I.

RICKETS, (*Rachitis*.)

**T**HIS disease was formerly believed to depend upon a defective, or morbid condition of the spinal marrow, as the name imports.

It is known by a pale and sickly countenance of the child, and an unusual size of the head; the chest, body and limbs are deformed, the breast-bone projects, while there is a distortion of the spine, the extremities of the long bones are enlarged, especially the knees, elbows and wrists; the thighs and legs are crooked, and bent outward; the sacrum and bones of the pelvis, also undergo a morbid change, and seem to approach, so as to diminish and compress the contained viscera, and the belly becomes tumid. In short, every appearance indicates debility and disease.

One of the *first* symptoms discovered, is a swelling of the head, which acquires a much larger size than natural.

This dreadful disease generally shews itself after the sixth or eighth month, although the child has been known to be affected from the birth. It is often connected with *scrofula*. The received opinion is, that a want of firmness in the bones of the subject, is occasioned by a deficiency of phosphate of lime. It may be excited in predisposed constitutions, by bad food or improper milk.

Rachitis has been known to terminate in *hydrocephalus internus* or convulsions ; or the child wastes away in a gradual manner. Sometimes, rickety subjects spontaneously improve in health, and recover an unexpected degree of strength and firmness of limbs. While this favourable change of body progresses very slowly, we observe the faculties of the mind prematurely evolved.

In the *treatment* of rickets, the remedies employed must be adapted to the state of the case. Due regard should be had to the *remote* and exciting causes, which are to be obviated or counteracted as far as may be consistent.

*Bandages* are serviceable, and are to be applied in such a manner, as to afford a support without impeding the circulation in the limbs. The *cold bath* is also beneficial. *Exercise*, in the *open air*, especially where it is more salubrious than that which the patient is accustomed to breathe.

With respect to medicine, the occasional use of laxatives will be proper. For this purpose, the phosphate of soda, (or tasteless salts,) Epsom or Glauber's salts may be given in *sufficient* doses. Chalybiates have certainly done good. I have given, the muriated tincture of iron, to a child four years old, night and

morning, in doses of eight drops, for several weeks, with decided advantage. This, however, will not answer when the stools are green, disordered, or fœtid. Purgatives are then indispensable ; after which, one tablespoonful of lime-water, with an equal quantity of fresh milk, two or three times a day, will be serviceable. The aqua potassæ may be substituted for lime water.\* *Emetics* are sometimes beneficial ; and Peruvian bark, and other tonics, have been recommended.

Children, with this disease, are generally, but not invariably, the offspring of parents who have been afflicted. I have met with cases where no such predisposition could be traced. It is certain, however, that several children, in the same family, have become rickety.

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## SECTION II.

### SCROFULA, STRUMA, OR KING'S EVIL.

THE scrofulous constitution is generally strongly marked, and said to be hereditary, and derived from the father, although eminent writers maintain, that females are most subject to it. The first symptoms do not usually appear before the second or third year of the child's life, but rarely after puberty.

A predisposition to scrofula, may be distinguished at the birth, by a softness and flaccidity of habit, light hair

\* See a Treatise on Rickets by Dr. Witherhead, London, 1820.

and blue eyes, with a dulness of the sclerotica. There is also a remarkable tumidity of the upper lip, "with a chop in the middle, stretching into the nares." It is sometimes connected with a rickety constitution, or follows that disease. It is also said to succeed small-pox in some instances; although, most common in *temperate* climates, scrofula may be met with in every region.

*Scrofulous tumours* first appear on the neck, below the ears, or under the chin. When handled they move under the skin, and do not seem to augment in size for one or two years. The LYMPHATIC glands are most affected; in the course of time, however, the *salivary* partake of the disease; also, the *large* joints, the spongy ends of these bones, as well as the articulations of the fingers and toes. The testicle is not unfrequently found to suffer, and the breasts of females are sometimes affected.

The tumours described, in time, enlarge and loose their elasticity; a fluctuation is discernable, and all the symptoms are, in course, aggravated.

Strumous swellings are now and then observed in early life, with the attendant symptoms, and wear off with age. The disease is not infectious, and, therefore, cannot be communicated by a nurse.

Perhaps there is no bodily affliction, recorded in the annals of medicine, for which a greater variety of remedies have been invented than this. Many have acquired great *celebrity*; but this has been transient or ephemeral. *Supernatural* means were formerly resorted to. In England, during the reign of Edward the Confessor, such was the superstition of the times, that the *royal touch* was deemed infallible; the number of these

afflicted objects who sought this favour from Charles the Second, seems almost incredible. This monarch is stated to have administered the *sovereign specific* to upwards of ninety thousand persons ! Its *illusory* character was, at length, exposed by the increasing splendour of the light of truth, of reason, and of science.

When these strumous tumours are large, and disposed to suppurate, the process may be forwarded by emollient poultices. That composed of the yolk of egg, honey and flour, is most effectual. If the contents are discharged, the matter is seldom purulent, but resembles white flocculi, not unlike the whites of eggs, or a thin whey-like, or curdy fluid ; after which, a *sinus* forms, attended with ragged, inverted edges, and painful ; the bony parts which lie beneath, or, in their course, become carious. This is, especially, the case in the *struma maligna*.

When *fluctuation* is perceptible in these tumours, as described above, an opening should be made in the most depending point, with a lancet. When left to themselves, they are usually tedious in bursting ; and there is always such a destruction of substance, that the succeeding ulcer is rendered larger and more painful, than when the lancet is used.

The *dressings* should consist of simple ointment, or wax and oil, in which a small quantity of burnt alum is occasionally mixed, to favour the process of suppuration, the ulcer being previously washed with warm water, and sometimes a solution of sulphate\* of copper ; the dressings are to be covered with compresses of soft linen folded, and supported by bandages moderately

\* Blue Vitriol.

tight, or secured with adhesive strips laid over them. In some cases of long standing, the ulcers may be dressed previous to bandaging, with the Quain's\* delight, sprinkled over the part.

Scrofulous *ulcers* frequently heal up while tumours form in other places.

The *cold bath* has been used with great success in this as in other cachectic habits, during the warm season. The disease often alternates with phthisis pulmonalis; therefore, the *indiscriminate use* of the *remedy*, where a predisposition to catarrh is very strong, will certainly be hurtful; also, in *delicate constitutions* it is to be carefully employed, in every instance before observed, when treating of the *cold bath*, (see chapter 1, section 2,) a glow over the surface of the body and increased animation, are to be considered evidences of its beneficial effects. *Bathing* in salt-water should be preferred, when the condition of the patient will admit of it. The tepid, or *warm bath*, will be serviceable where the *cold* is inadmissible. These should be continued a length of time, and at regular periods. In the first stages, laxative doses of Epsom, or Glauber's salts, are necessary. The gum guaiacum, in doses of two or three grains, with one or two grains of calomel, may be given with much advantage, once or twice a week.

The tonic virtues of the preparations of *iron* are *here* also deservedly commended. The muriated tincture of this metal, as advised in Rachitis, should be exhibited daily, mixed in a cold infusion of carduus or quassia. Most of the tonics of the mineral or vegetable kingdoms

\* *Stillingia Sylvatica* of Linnæus, (powdered.)

are valuable. Arsenic, zinc, barytes, lime, hemlock, and Peruvian bark, the latter in the form of decoction, with a few drops of elixir of vitriol, three or four times a day, has been very useful in many instances. Costiveness should be guarded against, by the occasional exhibition of enemata,\* or some convenient laxative medicine.

Mr. William Farr, surgeon, of London, in a late treatise on scrofula, speaks of the great efficacy of "*frictions*" with strong mercurial ointment, and the internal use of the alkalis, especially Brandish's liquor potassæ.

In the worst description of this disease, the *struma maligna*, its destructive progress has been arrested by the following alterative plan :

Take of *urias hydrargyri* (corrosive sublimate) one-eighth of a grain, muriatic acid ten drops, French brandy half an ounce, water seven ounces; *mix*. The subject, six years old, took one tablespoonful every other morning for three weeks successively. The patient evidently improved in health; the action of the *liver* seemed re-excited; its functions previously were suspended, or torpid. The *cold bath* was subsequently employed with advantage.

A *salivation* has not been found beneficial in scrofula.

\* Glysters.

## SECTION III.

## DISEASES OF THE EYES.

*Ophthalmia*, or inflammation of the eyes, or in which red globules are projected on the surface of the sclerotic, will frequently occur in childhood. The minute vessels on the eyes become distended, and excite exquisite sensibility; *light* is painful, and sometimes insupportable; the *secretion* of tears is copious and distressing.

Evacuant remedies, consisting of Glauber or Epsom salts, and now and then two or three grains of calomel, and the *use* of collyria, composed of *one* grain of the sulphate of zinc, and *two* of acetite of lead, with four ounces of cold water, will accomplish a cure.

A collyrium, to be efficacious, should be employed six or eight times a day, or oftener. In tedious cases, blisters applied to the temples, nape of the neck, &c. will be serviceable. Should the disease resist these, and the *vessels* on the eyes be distended, turgid, or varicose, they are to be *cut* or *divided*; the *operation* commonly termed *scarifying*, must be effected with the shoulder of a lancet. *Excisions* of the conjunctiva, when the turgescence is great, prove more beneficial. A small pair of curved scissors are to be used for the purpose; and the parts which have been clipt, should be bathed or well washed in warm water, as well to favour a flow of blood from the divided vessels, as to remove coagulation.

When the inflammation is violent, and the little patient suffers much pain, *leeches* may be applied to the temples. Blood-letting also from the arm will be advisable. Cathartics and blisters are to be repeated, until relief is obtained.

Cool air, light dress, and diet easy of digestion, as vegetables, bread, milk, &c. and shading the eyes from strong *light*, especially from candles or fires, must be strictly enjoined. After the second or third day, if the tongue appears coated, or furred, an emetic will be highly serviceable.

The Prussian surgeons give the Peruvian bark in obstinate cases, "without any unfavourable effect on the inflammation." In protracted cases, or chronic ophthalmia, tonics are certainly useful. Collyria, consisting of *one grain of green vitriol*, (salphate of iron) to three ounces of cistern, or rain water; or ten drops of laudanum to six ounces of water, used six or eight times a day, have produced happy effects.

The *purulent* ophthalmia is a very common *form* of the disease in early childhood, and is often *constitutional*. In this complaint, there is a constant discharge of thick matter from the inner surface of the *eyelids*; these are sometimes much swollen and turned out, exhibiting an ugly and distressing appearance. The inflammation is frequently so great, as to threaten the organization of the eye. In these cases, the disorder is communicated to the *cornea*, and in some instances to the *iris*. A weak collyrium, composed of white vitriol, should, by means of a syringe, be now and then thrown up between the lid and globe of the eye. Laxatives are also to be occasionally administered. Dr. Underwood's

Surgical Tracts, and Mr. Ware's Treatise, contain much valuable practical information on the subject, and may be consulted with advantage.

I have used, with excellent effect, an ointment composed of lard, (*axungia porcini*) half an ounce, camphor one grain, calomel twenty grains, well mixed. A little of this is to be inserted under the eyelid; or the disordered parts to be anointed with some of it, two or three times a day, the eye being previously washed with tepid water. The *aqua camphorata*,\* advised by Mr. Ware, is also very useful. *Calomel*, in small doses, as an alterative will be beneficial; one or two grains may be given for three nights, successively; and after suspending it for five or six days, the medicine may be resumed. Should this not act upon the bowels, or touch the salivary glands, which will be no disadvantage; the doses are to be altogether discontinued, and laxatives of castor oil or Glauber's salts, resorted to. Recourse must also be had to blisters, on the temples, nape of the neck, &c. and the *nurse* changed, or the child's food altered. In tedious cases, the change of air, or climate, may be beneficial. *Poultices* have been employed, but their effects, even in the chronic form of ophthalmia, are *equivocal*; they seem to exasperate the pain and re-excite inflammation; they certainly counteract one indication here, which is, to restore tone to the *de-*

\* Prepared in the following manner;—Take of *blue vitriol* and *armenian bole*, each four grains; camphor one grain; mix, and pour upon them four ounces of boiling water; when cool, filter off the *clear lotion*. Inject a mixture of 40 drops of this preparation, with one ounce of cold water, between the lid and ball of the eye, frequently.

*bilitated* vessels, through which red blood has been propelled.

I have frequently met with a disordered state of the margin of the eyelids, which were tumid and ulcerated, apparently a morbid condition of the *glands of meibomius*. The visual organ did not partake of disease here. The *treatment* which succeeded best was, anointing the parts with *mercurial ointment* every night, and the occasional exhibition of laxatives, as two or three grains of calomel twice a week, alternated with a sufficient dose of Epsom salts. The complaint sometimes proved tedious, and obstinately resisted every remedy.

An epidemic ophthalmia prevailed in the Orphan-House of this city, during the months of June and July last. One hundred and thirty-two children were afflicted with it. The attack of the disease was extremely sudden. A child, while in school, or at play, felt a darting and acute pain in his *eyes*, sometimes first in *one*, but within twenty-four hours, both were affected. On examination, the external parts and palpebræ, exhibited a red, or often a livid appearance, resembling the effects of a smart blow. In a few hours, the sclerotica became inflamed, accompanied with a severe and distressing pain and turgescence of the vessels of *this coat*. The *light* was, at this time, almost insupportable, and there was a copious watery effusion, which increased in attempting to open the eyes. This continued for three or four days, when suppuration, in many cases, succeeded; the matter discharged from the ball and under parts of the palpebræ was thin, of a green and yellow colour.

About the seventh day the patient began to recover. The convalescence was sometimes rapid. In the course of ten days, no appearance of the disease existed.

The violence of the inflammatory symptoms required prompt depleting remedies, which afforded relief. In many instances, it was necessary to take blood from the arm. The bowels were freely and repeatedly evacuated; saline laxatives, as well as antimonial powder, calomel and jalap, were employed with this intention, and to determine to the skin. The turgid vessels of the sclerotica were divided; and, in several cases, more effectual excisions were made. Blisters were also resorted to. Emetics were, on some occasions, beneficial.

Collyria of white vitriol and sugar of lead, were serviceable, after the second day. For the first and second days, no topical application gave relief, but seemed to aggravate the pain. In the suppurating stage, the subjects were strictly enjoined, not to allow the matter secreted to remain on the eye; and when the *lids* were much swollen and sore, the margins were anointed with lard, in which a little calomel was mixed.

This *treatment* proved happily efficacious; neither specks on the cornea, nor organic visual affection of any kind, succeeded.

Boys were more subject to it than girls, and the sanguineous and plethoric than those who were thin and delicate.

No satisfactory *causes* could be assigned for the prevalence of this epidemic, unless we were to consider as such the previous and frequent, as well as sudden vicissitudes of temperature, from cool and wet to extremely

hot and dry weather. Epidemics, however, often occur in large institutions, without any assignable, *remote*, or *exciting causes*.

A *spongoid affection* of the *eyes*, with a diseased state of these organs, now and then occur. The *eyes* in these cases, eventually suppurate and burst. Excre-scences sprout out, and the bones forming the inner canthus, becomes carious.

*This* is to be considered as a cancerous complaint, and proves fatal if extirpation, is not seasonably adopted. *It* is believed to originate from wounds, or blows on the eyeball ; or succeeds violent ophthalmias, which have been neglected, or unskilfully treated with poultices, or improper topical remedies.

Violent head-aches, and great sense of heat in the eyes, precede the disease. It is asserted, that the largest proportion of these subjects, received into the hospitals of Paris, are under twelve years of age.

The remedies advised in the first instance, are, blood-letting, local and general. In this case, the temporal artery may be opened. Laxatives are also indispensable ; and blisters to the temples, nape of the neck, and head. When these fail, the operation ought not to be delayed.

*Night blindness*, or *nyctalopia*. This term is used by *writers* with much ambiguity ; or, in a contrary sense, especially with certain eminent moderns. Professor Scarpa, and Baron Boyer,\* apply to it the name of *hemeralopia*, and treat it as a sympathetic disorder,

\* Traite Des Maladies Chirurgicales, &c. Tome 5ieme. p. 479.

of periodical recurrence, influenced by the state of the stomach. I have met with it, in several instances, in *subjects* under the ninth year. There was a constant irregularity or contraction of the pupils; and as the evening advanced they became entirely blind, and groped their way when called. These children were of delicate constitutions.

It may be considered as a species of *amourosis* ;\* or may depend upon a constitutional debility of the retina, not unfrequent in warm climates.

In the *cases* above adverted to, emetics, tonics, especially Peruvian bark, with compound spirits of ammonia, and the cold bath, were, at different times, serviceable. In one case, an intermission, or period of suspension of several months, occurred.

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#### SECTION IV.

### EAR-ACHE, (*Otitis*.)

INFLAMMATION of one, or both ears, with excruciating pain, occurs, *sometimes*, in early childhood; but, very frequently between the second and fifth years, leaving a remarkable predisposition to recurrence.

When the child is too young to express its feelings, we conclude, from sudden fits of crying, the inclination of its *head*, and frequently moving it, and restlessness,

\* Vide Haller's Physiology, vol. 2, p. 89.

especially when the ear is touched, that *this* is the cause of its suffering.

The paroxysm lasts several hours, when a remission of pain takes place, and the patient falls asleep. This is followed by a thin discharge of matter, which is discovered on its cap, or the pillow.

I have known it to continue three or four days, with slight remissions of pain only in the morning; after which, the discharge was very copious. The tympanum and internal structure, but, in particular, the termination of *meatus auditorius internus*, have, in a few instances, been ulcerated, and the sense of hearing permanently impaired, although the effect, generally, is only temporary.

In this complaint evacuants are required; the bowels should be opened with Epsom salts or castor oil, and the ear carefully and frequently syringed, or washed with a *lotion*, consisting of ten grains of sugar of lead, sixty drops of tincture of myrrh, with eight ounces of water. After which, should the pain continue, a little *audanum*, mixed with olive oil, may be dropped into the ear; or a few drops of vitriolic ether, upon cotton or wool, put into the ear for a short time, and repeated, until relief is obtained. Blisters, as near the parts as possible, will be beneficial.

Mr. Curtis, of London, in a valuable work on *Otitis*, advises poultices when the inflammation does not subside; and when suppuration takes place, to puncture the ear.

In slight cases, keeping the ear warm, by means of a handkerchief, or bandage, and the topical application of

laudanum and oil, or ether, as above directed, will seldom fail to afford complete relief.

The *ear-ache* is most commonly produced by taking cold. This should be obviated by careful attention, and cleanliness.



## SECTION V.

## FŒTID DISCHARGE FROM THE NOSE.

(*Ozæna, &c.*)

THE constitutional disease on which *this* depends, which we consider to be scrofulous, must be taken into view. It is, however, often met with at a late period of life, as a symptom of *cachexia syphyloidea*.

The *discharge* from the nose is purulent and fœtid, and seems to proceed from an ulcer. The matter is discharged in the greatest quantity in the morning, and a *sneezing* attends.

The matter, at first, rather resembles mucus than pus, but gradually assumes this appearance, and is now and then streaked with blood. The *alœ nasi* and cheeks occasionally partake of the ulcerations. During the progress of the disease, the *bones* of the nose, as well as those common to the face and skull, become carious.

The *internal remedies* advised in scrofula, have been found beneficial here. A *decoction* of sarsaparilla, with elm bark, has proved efficacious.

Laxative doses of antimonial powder and jalap, or cream of tartar, &c. are to be exhibited once or twice a week.

The following external applications have been found very useful. Take of the mineral solution of arsenic three drachms, gumarabic two drachms, warm water four ounces; when the gum has been dissolved, add one drachm of tincture of myrrh. Some of this to be introduced into the nostrils, and applied to the parts affected by means of a feather or camel's-hair pencil, five or six times a day.

A weak solution of blue vitriol, (sulphate of copper) will also prove beneficial, as well as *mercurial* washes. The most valuable lotion of this mineral, is prepared as follows:—Take of lime-water eight ounces, cor. sub.\* one scruple; shake the phial well, and use it as above directed, four or five times a day.

\* Murias Hydrargyrī.

## CHAPTER IV.

**Dentition.**

**D**ENTITION constitutes an interesting and important epoch in childhood. The *teeth* are formed in the jaws some time before the birth. In the fœtal state, each jaw has a groove, extending over its surface, which, in time, is divided transversely into cells, becoming the future sockets, or *alveolar* processes. In each of these are small pulpy bodies, contained in their appropriate capsules or sacks. In due season, these bodies ossify, or rather acquire the substance of *teeth*, as well as their several forms; and, at their appointed time, pierce through the surrounding vascular substance, denominated gum. They are connected with the jaw by a species of articulation termed *gomphosis*.

A tooth consists of three parts; the *body*, or all that part which is above the gum; the next is its neck, which separates it from the *fang* or root, being that portion which is under the gum, and implanted in the socket. The body of the tooth is thickly covered with a dense white and polished *vitrious* substance called enamel, down to the neck, when it ceases. The *neck* and *roots* are closely invested by a thin membrane, the *periostum* and resemble bone in structure, but somewhat more compact. There is a cavity in each tooth, for the reception of blood-vessels and a nerve.

Instances have occurred, of children being born with *teeth*; and they have not unfrequently been known to appear at the third or fourth month; but the usual time for *cutting them*, is not until the child has attained its seventh month.

The *symptoms* are, fulness, swelling and inflammation of the gums of the *lower*, and afterwards, of the *upper* jaw. The child is fretful, and often thrusts its fingers into its mouth. There is an increased secretion and *flow of saliva*. It sometimes happens, however, that *this* is suspended, the bowels are disordered, and the heat of the body augmented, with restlessness and other febrile symptoms, *subsultus tendinum*, and convulsions. All these symptoms are more or less violent and distressing, in proportion to the degree of irritation and pain consequent on a departure from *regularity*, in the usual time and order of *teething*.

The following is the order in which the teeth generally appear:—The two centre *incisores* (front teeth) of the lower jaw *first* cut the gum. In about one month after, the *corresponding* in the upper jaw make their appearance; these are after a few weeks, followed by the other two *incisors*. Between this and the ninth or twelfth months, the contiguous front *teeth* protrude, the lower *preceding* the upper, as with the first. At the close of the *sixteenth* month, as there are no *bicuspid*es among the deciduous, or milk teeth, the first *mola*res, or grinders, push through the gum, leaving a space between *them* and the *incisores*, for the *cuspidate* or canine teeth, which do not ordinarily appear before the twentieth month, being deeper in the jaw. The *large mola*res do not discover themselves until the second year.

Thus, we find that the *first set*, or milk teeth, are ten in number, in each jaw, viz. *four* incisores, *two* cuspidati, and *four* molares, or grinders; while the adult, or *permanent set*, consist of sixteen, viz. *four* incisores, *two* cuspidati or canine, *four* bicuspides, and *six* molares. The two last, in each jaw, are called wisdom teeth, (*dentes sapientiæ*) being seldom evolved before the twentieth year.

The deciduous, or milk *teeth*, are adapted in number and structure to the capacity or dimensions of the infantile *jaws*; their bodies are small, and their roots comparatively superficial; but, about the *sixth* year the jaws enlarge, and the first set of teeth begin gradually to yield to those which are to be permanent; subject, however, to some irregularities, occasioned by numerous causes.

From the seventh to the eleventh year, the adult teeth are supplanting those of infancy.

That a *process* of the animal economy, so perfectly natural and inevitable in its occurrence, should be associated with disease, will cease to excite surprise when we reflect, that innovation, and a dereliction from primitive manners and customs, have entailed upon the offspring of man, *evils* which, perhaps, are scarcely known to the aborigines of our country, or among other uncivilized nations.

An effeminacy of manners may have destroyed an inherent or instinctive defence against disorders.

It must, however, be admitted, that under every circumstance and condition of life, the eruption of teeth is, with the greatest proportion of subjects, accomplished

easily, and without any complaints or diseases which awaken anxiety, or excite distress.

Analogy certainly supports the impression, that disorders from cutting teeth are not among the natural evils.

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SECTION I.

DISEASES INDUCED BY DENTITION.

*Symptomatic complaints*, excited by local irritation, are comprehended under this head. These are not unfrequently alarming and dangerous.

Deviations from the natural order in the eruption of infantile teeth, occasionally occur to a great extent. The *canine* and first molares sometimes advance rapidly, so that, at this stage, (between the sixteenth and twentieth months) *eight* teeth are presumed to be pressing on the gums; all the symptoms of difficult teething are, therefore, aggravated. Diarrhœa, fever, sometimes a cough and cholera, attend; if speedy relief is not afforded, convulsions may also supervene.

The means of moderating this excessive irritation, and of alleviating symptomatic disorder, require the utmost care of the practitioner.

To fulfil the first indication, it is advisable to examine the condition of the *gums*; and if they seem, in any degree, full and swollen, over the parts where the teeth are to protrude, to divide the same with a lancet down to the *teeth*.

It is proved, by experience, that even when these have not approached the surface, the scarifications, as they are termed, afford relief.

Various substances are employed for the child to press its gums upon, which afford only temporary relief. Gum sticks of coral or wax, or a piece of biscuit, or crust of bread, answer the intention; but some caution must be observed, or the child will injure, or perhaps, choak itself, with detached portions of the latter. Those substances which, in a slight degree only, resist the pressure, as wax, &c. are otherwise preferable to coral, which is too hard, and increases the pain and swelling of the mouth. When, however, the gums inflame and swell, children are naturally inclined to thrust their fingers into their mouths, which may be allowed, unless there is a habit acquired, of pressing upon one finger only. I have seen ugly ulcerations produced in this manner.

To effect the *second intention*, or to moderate febrile symptoms in teething, laxative medicines are useful. For this purpose, a sufficient portion of Epsom salts, dissolved in fennel-seed infusion, may be given at repeated doses, until physical stools are produced. Should the passages be foetid, mixed with green or acid, and vitiated bile, a little magnesia may be added to the mixture; or, it will be proper to exhibit an emetic of ipecacuanha, which will more effectually remove *griping* pains; afterwards, an absorbent and aperient, of magnesia one drachm, rhubarb five grains, infusion of fennel-seed two ounces, mixed, and given in doses of two or three teaspoonsful every two hours, will change

the appearance of the stools, and restore the healthy and natural operation of the viscera.

When the heat of the body is distressing, the tepid, or even cold baths, will be serviceable. But, should the child's bowels *be loose*, or much disordered, it will be more benefitted, by being placed up to the navel in warm water, or the application of cloths, wrung in warm water, as a fomentation to the umbilical region and epigastrium, or pit of the stomach. *Sponging* these parts with spirits, to which a little laudanum is added, sometimes has a good effect.

Children, of gross habits, may require a repetition of laxatives. Their bowels are to be kept freely open, especially when much fever attends; and when there is a determination to the head, a few ounces of blood should be taken from the arm; or leeches, applied to the head, and a blister between the shoulders.

If the looseness, (*or diarrhœa*) on the contrary, exists and proves distressing, or alarming, the absorbent mixture, already mentioned, must be resorted to, and injections of rice or barley water, with four or five drops of laudanum, thrown up every fourth or sixth hour, until the disorder abates. The warm fomentation described, will also be useful.

In other cases, where the irritability of *stomach* continues troublesome, eight or ten drops of compound tincture of opium (paregoric) mixed with one scruple of prepared chalk, and two ounces of water, should be exhibited in doses of two or three teaspoonsful, every half hour, until relief is obtained. It is sometimes necessary to apply a blister to the epigastrium. To effec-

tuates the design, if the gums have not been lanced, this must no longer be delayed.

In the application of blister plasters, to young persons, it is seldom necessary to keep them on longer than three or four hours. On their removal, although they appear to act now and then only as rubefacients, a complete vesicle, in a little time, succeeds.

When convulsions supervene, synapsims, or mustard plasters, are to be applied to the wrists and ankles, or soles of the feet, which should be removed in thirty or forty minutes, and re-applied, if necessary; about eight or ten drops of spirits of hartshorn, or the compound spirits of ammonia, may be added to the chalk mixture, as above, and two or three teaspoonsful given every twenty minutes, until the alarming symptoms subside. The pediluvium, or what is more effectual, a warm bath, will be often of beneficial result; as well as injections of warm water, in which a small quantity of soap has been dissolved.

If the bowels, however, have been confined, two or three teaspoonsful of castor oil should be given; and where the stomach is oppressed, an emetic of ipecacuanha will generally prove salutary, especially when the tongue is coated, or furred.

## SECTION II.

## STOMACH AND BOWEL DISORDERS.

*(Cholera Infantum.)*

CHILDREN are most subject to cholic affections, accompanied with griping and diarrhœa, between the eighth and sixteenth, or twentieth months, and sometimes after the second year. No constitutions are exempt; although delicate children, and those who have been recently weaned, or cut their teeth late or irregularly, are most liable. The pain and irritation of teething, season of the year, neglect of cleanliness, and local circumstances, concur in producing an increased and vitiated state of bilious secretion, acidity, acrimony, and other disturbances in the first passages.

*Cholera* sometimes prevails as an epidemic during the spring and early part of summer. It formerly received, in this city, the appellation of "April and May disorder." The mortality among infant subjects, from this cause, anterior to the last thirty years, was awful and distressing; and it continues to occur, but by no means so generally, or severe, as at those periods.

An increased salubrity of climate, which accurate records, faithfully preserved for many years, incontestibly prove, has greatly diminished this source of anxiety. The late Dr. Ramsay, in his valuable medical History of South-Carolina, remarks, prior to the year 1800, "that the *spring* months were formerly the terror of

parents ; and that, diseases of *that season*, had become less frequent and less mortal.”

There are more children lost to the community by *cholera*, at this critical age, than at any other stage of life. A moist and warm climate, or situation, must always be deemed unfavourable to health ; but, we shall not find, on a careful examination of the bills of mortality, that the more northern atlantic cities are exempt, or are less subject to this annual affliction. It may, in fact, be considered the common outlet of infant life in all our large towns.

It cannot fail to excite the most pleasing and grateful emotions, when to observe, that this evil does *not increase*, but very sensibly diminishes. *Previous to* the year 1820, the bills of mortality, during the spring months, as published by order of the board of health, exhibited the deaths of a larger portion of children, by one-fifth, than have been subsequently known.

The child is sometimes very suddenly attacked with sickness and vomiting, which, at first, consists of little more than the contents of the stomach ; but, a frothy matter, with phlegm and green bile, is soon after brought up. If nourishment is given, he rejects it almost immediately. Other indications of great gastric excitement, langour, lassitude and debility, succeed, with a cool clamminess of the surface of the body and extremities. The child lies in a listless state, or sleeps with its eyelids partially closed. Every exertion brings on vomiting.

Now and then the puking subsides ; but diarrhœa, or oftener, rather a rush through the bowels, takes place ; the stools are watery, much heated, and have a very

## Practical Observations

our smell; or, they are mixed with green, vitiated one, the palms of the hands become dry and warm, and there is a peculiarly heated and sour smell of the breath; the pulse is somewhat quick, but seldom full, and there is usually an evening exacerbation. These symptoms, in some instances, decline after a day or two, then recur and assume, for several weeks, a chronic or milder form. Sometimes the approach and progress of the complaint are gradual, but not less fatal in the issue.

In the *treatment of cholera*, it should be first observed, how far the eruption of teeth may be concerned in producing it. Should this be ascertained by the *swollen* state of the *gums*, they are to be lanced or scarified, in the manner described in chap. 4, sect. 1. A mitigation of all the alarming symptoms often attend this practice.

The warm bath is highly useful; and injections of thin warm gruel, or barley water, are serviceable. When the bowels have not been affected, a teaspoonful of Glauber's salts should be added to these. If moderate evacuations of the bowels are produced, the *vomiting* will generally be restrained, or suspended; but when this last symptom is violent, a mixture, composed of half a drachm of magnesia, with two ounces of infusion of cinnamon, and eight or ten drops of compound tincture of opium (paregoric) may be given in doses of two or three teaspoonsful every hour; or sometimes alternate *this*, with a spoonful of lime-water, and an equal quantity of fresh milk, until the stomach is composed; after which, administer the mixture of magnesia, rhubarb and fennel-seed tea, as before advised, until the bowels are moderately opened, or a laxative prepara-

tion, composed of one or two drachms of Epsom salts, about twenty grains of magnesia, and two ounces of water, or fennel-seed tea, until stools are produced.

It is not uncommon for a thrush, or aphthous affection of the tongue and mouth, to take place in *chronic* cases, or the anus becomes excoriated.

The symptoms attending this disease, are often so alarming, as to require the instant use of the warm bath—synapisms (or plasters of mustard) to the wrists and feet—warm fomentations to the body, and blisters to the epigastrium, in order as well to support the powers of life, as to determine to the surface. The chalk mixture, with an infusion of cinnamon, and two or three drops of laudanum, is also required to check the violent irritability of the stomach. I have sometimes preferred a grain or two of the compound powder of ipecacuanha, (Dover's powder) mixed in a teaspoonful of toast water, or something of the kind. This plan of treatment is particularly required, when an alarming diarrhœa or rush through the bowels occur. After which, the mixture of magnesia and rhubarb, should be exhibited. Glysters of rice or barley water, with five or six drops of laudanum, are useful auxiliaries in these cases.

When the stools are attended with pain, and a discharge of mucus, or become *dysenteric*, with irregular chills and fever, one or two grains of ipecacuanha may be advantageously combined with the prescription above advised, or a gentle *emetic* of the same.

When the disease has been, in some degree, restrained, *small doses* of powdered Columbo root, from five to eight grains, mixed in a spoonful of cold water, or cinnamon tea, and exhibited three or four times a day,

prove highly serviceable in counteracting debility, and preventing a return of vomiting. *Acidity* in the primæviæ, must always be evacuated, or corrected by magnesia, or prepared chalk mixtures, with rhubarb, or emetics of ipecacuanha, whenever the symptoms are manifested.

These remedies are to be pursued as circumstances indicate, until the *evacuations* become more natural, which, in a healthy infant, are ordinarily of an *orange* colour, without any peculiar fœtor.

Attention must be paid to the child's nourishment. The cup, or sucking bottle, if used, should be washed and preserved clean ; and when the *nurse's* milk is believed not to agree with the patient, some other ought to be obtained.

The child sometimes discovers a thirst throughout the continuance of this complaint. Then rice gruel, barley water, or parched-corn water, diluted arrow-root, &c. will be proper ; or, now and then a little water *simply*. The breast milk does not sufficiently allay the thirst.

As a cold, wet and late spring, seems to conduce materially to this distressing disease, no *permanent* change of the child's dress should be made before the month of June ; or, the clothing ought to be carefully adapted to the transitions which so frequently occur in this climate. So great is the sympathy between the bowels and skin, in this complaint, that when flannel has been taken off, it would be advisable to restore its beneficial tendency as speedily at possible.

In the protracted form of this disease, however, when the weather proves *warm*, I have frequently known the little subject to recover its strength and appetite quick-

y, by using the *cold bath* two or three times a day. The water should be poured over its head and shoulders, from a basin or pitcher. It will be soon observed whenever it agrees ; if it does not, on the first attempt, it must be discontinued. This remedy appears, in some instances, to have snatched the child from a premature grave.

When the subject's constitution has become much impaired, by frequent attacks of the complaint, a *change of air*, by land or water, riding out, and sailing, will have a salutary effect. Children have revived, by this means, when their cases were almost hopeless.



## SECTION III.

## CONVULSIONS.

(*Sudden and violent contractions of the body and limbs, or hands and feet, with distortion of features, &c.*)

CONVULSIONS may occur at any period, and from numerous causes, but most frequently at the closing stage of diseases, when the sensorium or vital functions are sympathetically affected; irritation from teething, worms, stomach and bowel disorders, &c. They sometimes usher in certain eruptive diseases, as small pox, &c. ; and succeed wounds and contusions of the head.

The *treatment* of this alarming state of the system, must be regulated by circumstances. Regard should be

had to the exciting cause, or the original disease. Scarifying the gums, the warm bath, injections, blisters, sinapisms, &c. will be required in many instances ; also, cathartics and blood-letting, especially when wounds and contusions have been experienced. Among the external stimulants, poultices, with garlic, are, in some cases, invaluable ; when applied to the soles of the feet and wrists, their effects are speedy, and tend to induce reaction in a shorter time than other means. In effecting this last intention, the child's limbs and body should also be briskly rubbed, and five or six drops of spirits of volatile alkali, or hartshorn, exhibited in a little water, at intervals of half an hour, or oftener, will be of the most beneficial result.

Where worms are suspected, two or three teaspoonsful of castor oil, with five or six drops of oil, (or spirits) of turpentine, will be proper, to be repeated every hour or two, until the bowels are freely opened. If the child's face is much flushed with heat, and other symptoms of determination of blood to the head, venesection to the extent of four or five ounces, will be necessary ; after which, an emetic mixture of ipecacuanha and tartarised antimony, should be given until vomiting is excited.\* Laxatives are also required.

When these fits occur a few days after the birth, a morbid condition of the vital organs may be suspected, which, in this case, prove fatal.

\* Dr. Lionel Chalmers has remarked, that children in this country, generally recover of convulsions, when they can be made to vomit.

SECTION IV.

TOOTH-RASH, RANK RED GUM.

(*Strophulus Confertus.*)

THIS eruptive disease appears about the sixth month, in numerous, thickly-set papulæ, on the alæ nasi (sides of the nose) and cheeks. According to Dr. Willan, when the disorder appears later it affects first the arms and chest, and breaks out in patches, larger and flatter, with more inflammation, but sometimes terminating in little acuminate points, or dots, with watery heads.

It may be distinguished from measles by the absence of fever and catarrh; the eruption, however, dries off something in the manner of that disease, although Dr. Underwood observes, that this is not the case in England.

Laxatives, such as are directed in the foregoing complaints, are proper, especially when combined with magnesia. An emetic will accelerate the disappearance of the complaint. The general health is, however, seldom much disturbed, and it often goes off spontaneously.

## SECTION V.

## MILK ERUPTION, OR BLOTCH.

*(Crusta Lactea.)*

THIS is a scabby eruption, which breaks out upon the forehead, scalp, and sometimes the face of children, during dentition. It is, at first, white, but becomes darker, and is, now and then, disposed to be confluent. The eruption is about the size of the variola,\* but discharges a thin acid humour, followed by large loose scabs. Gross children are most subject to this *disorder*, which must not be confounded with tinea, (*scald head*.) See part 2, chap. 3, sec. 5. It may prove troublesome, but is not commonly attended with danger. Children afflicted with it, cut their teeth early.

Gentle laxatives of Epsom salts, or a few grains of calomel, in some cases, followed by castor oil, or salts, and sometimes an emetic of tartarised antimony may be serviceable; and *lotions* of salt-water, or lime-water, may be used.

\* Small-Pox.

## SECTION VI.

## DROPSY OF THE BRAIN.

*(Hydrocephalus.)*

THIS melancholy and truly formidable disease, receives the appellation of *hydrocephalus externus*, when there is an accumulation of water between the brain and *dura mater*; and *internus*, when the effusion takes place in the ventricles,\* which is by far the most common form in this country. It is frequently met with in children during dentition; but will occur in earlier infancy, as well as in more advanced childhood. Those of fair light complexions are most liable to it.

Dr. Benjamin Rush, described it in strongly marked characters, in subjects but six weeks old; and Dr. Fothergill has adduced similar instances.

In consequence of the disproportionate size of the brain in childhood, and the quantity of blood transmitted to it, there is, probably, as great a determination in fever to this part, and tendency to effusions, as there is in pleurisy of adult subjects, to hydrothorax.

It is sometimes insidious in its approach; and, strictly speaking, like other dropsical affections, should be treated rather as an effect of disease, or symptomatic;

\* *Hydrocephalus externus*, in Dr. Cullen's nosological arrangement is considered as a genus in the class of *cachexia*, the *internus* as a species of *apoplexia*, the tumefaction not being obvious to the senses.

the constitution of the child being impaired by some complaint incident to teething, catarrhal, or other forms of fever, previous to symptoms indicating hydrocephalus.

The *disease*, in some instances, progresses rapidly, and destroys the child in a few days. It has, accordingly, been considered *acute* or *chronic*. In the first case, especially in young subjects, it may terminate in five or six days; in others, the disease will go on three weeks, or longer.

In the early stage, according to the ordinary form, the child appears languid, drowsy and fretful; yet, at intervals, is seemingly easier, or cheerful; but the appetite is impaired, and *vomiting* occurs once or twice a day, with febrile heat of the skin towards evening. In a little time after, the patient is affected with *acute head-ache*, either in the forehead, crown, or side of the head, *which* is discovered in young children by an inclination of the head to the side pained. It is observed, that when the head-ache is most violent, vomiting is less frequent, *et vice versa*.

The light now becomes distressing to the patient; it cries or moans much, sleeps but little, and when it does, it is unsound—often starting, or screaming out as if terrified. A cough sometimes attends. It also grinds its teeth, and picks its nose frequently. The bowels are, for the most part, confined, or costive; which, as has been justly remarked by writers, first excites alarm. In this first stage, the pulse is not materially disturbed, but the respiration\* is unnatural.

\* In a morbid state of the system, much important auxiliary information may be obtained from an attention to the respira-

When these symptoms have continued a few days, the following phenomena occur:—Strabismus is remarked, or the axis of one eye is observed to be turned in towards the nose. The pupils of the eyes are dilated; vomiting takes place more frequently; the headache becomes excruciating; the face flushed, one cheek generally more than the other; exacerbations of fever at night, followed by a slow, irregular pulse. Transient perspiration and bleeding at the nose, which sometimes occur, produce no alleviation. Delirium is now and then observed.

In this stage of the disease, it may be mistaken for the worm, or slow, irregular typhus fever. (See part 2, chap. 1, sect. 4.)

In the second stage of hydrocephalus, the symptoms above enumerated, continue, but seem, at first, to abate in a slight degree. This, however, is *delusive*; for, although vomiting subsides, and the child takes nourishment, it appears to swallow with avidity, and its eyes, if carefully examined, seem insensible to light. Strabismus, moaning, and restlessness, recur. Obstinate costiveness, and frequent pulse, sometimes beating from one hundred and forty to one hundred and sixty strokes in a minute—all mark a fatal progression. The tongue is often covered with a thick white coat, and crampish spasms, or twitchings now and then occur. Worms are occasionally voided, which only deceive the inexperienced. The breath acquires a peculiar fœtor; the eyes suffused with blood; respiration difficult; the

tion. By the ancients, particularly Hypocrates, it seems to have been more regarded than the pulse.

countenance is alternately pale and flushed ; petechiæ, or red spots, appear now and then on the body and limbs ; one side becomes paralytic ; urine and fœces are discharged involuntarily ; at length, deglutition is difficult, and convulsions close the scene.

The symptoms here described, are not always regularly marked ; and morbid effusions in the brain have been discovered,\* *post mortem*, when many of the phenomena of hydrocephalus have been wanting. The pulse is sometimes almost throughout preternaturally slow, while, in other cases, extremely hurried ; and instances have occurred, where the painful affections of the head were scarcely to be detected. It has been justly remarked, that those who have had vigorous constitutions, sink under the disease sooner than the delicate and weakly.

The remedies employed, should be prompt and decisive in their operation, tending to diminish arterial excitement in the brain, and prevent effusion ; this is important, for an effused fluid in the ventricles, will be slowly absorbed. Blood should be taken from the arm, and leeches applied to the temples. These, with *venesection*, are to be repeated, as often as pain and other symptoms indicate, especially in robust children, and when the pulse is full and hard. The bowels, at the same time, must be freely opened with castor oil, or Epsom salts, and afterwards with calomel and antimonial powder, in doses of two grains of the former, and one of the latter, in syrup, every sixth hour. In

\* The quantity of fluid discovered in the ventricles of the brain in children, is almost incredible ; nine, and in some instances, thirteen pounds have been related to have been found.

this manner, the febrile action will be reduced, perspiration excited, and the bowels kept sufficiently free. If, however, griping, with uneasiness of the bowels and tenesmus, occur, omit these, and give an emetic of ipecacuanha, and afterwards, a mixture of magnesia and rhubarb.

As soon as the state of the bowels permit, it will be proper to resort again to calomel; small doses may be given at distant intervals, with the one-fourth, or one-half of a grain of powdered fox glove, every sixth or eighth hour.

To allay irritation of the stomach, and to assist in preventing effusion, or diminishing the determination to the brain, blisters are necessary. They should be applied, in succession, to the epigastrium, between the shoulders, the nape of the neck, temples, &c.

The bowels are to be kept sufficiently free, by injections and laxative doses, as above directed. When spasmodic twitchings occur, which are, in some cases, remarked, give from three to five drops of laudanum, according to circumstances, every fourth hour, until relief is obtained, and bathe the course of the spine with camphorated spirits and laudanum.

*Hydrocephalus* is sometimes a prevailing disease in families, at a certain age. The period, therefore, when it usually appears, should be observed and guarded against. The cold bath will invigorate the constitution, and occasional purgatives divert the determination from the brain, and exert prophylactic powers.

When it has been produced by repelled eruptions, a blister between the shoulders, the neck, or head, a seaton, laxatives, and bleeding, topical, as well as general, must be resorted to.

## CHAPTER V.

## Catarrh.

**I**NFANTS and children, as well as adults, are liable to *catarrhal* complaints, which may be either *mild* or *common*, as in taking cold from exposure, or getting wet after being heated, or, in some accidental or unknown manner; or, may prevail as an epidemic, as we sometimes observe, after the first cold weather in autumn, especially when the atmospherical vicissitudes are remarkable; and also, during a damp and cold spring.

The symptoms of catarrh are, a sense of fulness, or pain of the head, inflamed eyes, with a watery discharge from them, as well as from the nostrils; flushed face, fever, the pulse being full and frequent, or irregular; the skin dry and hot; sometimes hoarseness, or breathing oppressed with cough, thirst, &c.

The disease, in most cases, will subside in the course of six or eight days.

Catarrh is an inflammatory complaint, often the forerunner of some more alarming disease. The remedies should, therefore, be efficacious.

When the skin is dry and hot, with much fever and oppressed breathing, a few ounces of blood should be taken away; the quantity must be regulated by the violence of symptoms, age and constitution of the child. A laxative and sudorific mixture is next proper. This

should consist of a *solution* of Epsom salts, of sufficient strength, given in doses of one tablespoonful, with five or six drops of antimonial wine, every hour or two, until free evacuations by stool are produced; after which, the patient is generally relieved.

A pectoral drink of barley water, or flaxseed tea, sweetened, now and then administered, will be of service. On the succeeding day, if the difficulty of breathing, fever, &c. continue, an *emetic mixture*, composed of ten grains of ipecacuanha, and one of tartarised antimony, with four ounces of water, may be exhibited in doses of one tablespoonful, every twenty minutes, until the child vomits two or three times. The bleeding ought also to be repeated, if the symptoms are urgent; and the laxative mixture again administered. After which, a grain or two of antimonial powder, with an equal quantity of calomel, may be given, mixed in a little syrup, and the dose repeated every fourth hour, until the symptoms abate. In obstinate cases, with fever, &c. blisters are also necessary. These are to be applied over the breast, back, arms, &c.

In the common forms of catarrh, or merely taking cold, as it is usually termed, laxative medicines, a gentle emetic of ipecacuanha, and the tepid, or rather, a warm bath, will generally prove sufficient.

## CHAPTER VI.

**Diseases,**

Attended with inflammation and ulceration of the Throat and Fauces—"Cynanche."

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## SECTION I.

## CROUP, OR HIVES.

(*Cynanche Trachealis, Suffocatio Stridula, &c.*)

**T**HIS alarming and dangerous disease, seldom attacks children before the sixth month; and, as Dr. Cullen has, with great accuracy, remarked, most frequently just after being weaned. After this period, the younger they are, the greater the liability. Those above twelve years are rarely affected.

It is certainly an inflammatory disease; but, often proves fatal, by inducing suffocation before the usual termination of inflammatory action takes place, or, rather before it produces *effusion*, or gangrene.

The effusion apprehended here. is on the inner surface of the larynx, where, as dissections demonstrate, a *membrane* is formed.

The symptoms, are those attending catarrh. with hoarseness, or rather a croaking sound in the voice in respiration, which is increased by coughing, pain in the upper part of the neck or throat, (larynx) a distressing wheezing noise in *inspiration*, fever, restlessness, &c. The throat and fauces, when inspected, do not always discover inflammation, but appear swollen, or *not* natural, or healthy.

The cough is sometimes unattended with *expectoration*; and when *it is*, the matter expectorated, resembles filmy membranous portions.

The symptoms, in violent cases, rapidly increase in a few hours. Respiration is more difficult, a sense of strangling in the fauces takes place, and the patient expires in a state of suffocation.

*Croup* is not contagious; the same patient is subject to frequent attacks after the first paroxysm. It is sometimes a disease to which certain families are predisposed, and is, generally, occasioned by taking cold; therefore, often occurs during the winter months, especially after damp or wet seasons, with easterly winds. Children of coloured persons, are not as frequently its subjects as the whites are.

A minute attention to the phenomena of croup, leave scarcely a doubt of its being a disease, analogous in character to others notoriously inflammatory, as pleurisy, &c.; where, instead of effusion taking place within the chest, on the pleura, or lungs, it terminates on the upper part of the viscera, subservient to respiration. And if the *membrane*, the result of this exsudation, is not uniformly found, it is because suffocation takes

place previously, in consequence of spasm, induced by local inflammation and turgescence, preceding *effusion*.

In milder forms of croup, the febrile symptoms are slight, and the croupish wheezing abates during the day, returning for two or three successive nights.

A disease so acute and inflammatory, must be promptly *treated*. When the attack is violent, blood-letting becomes immediately necessary. From four to six ounces of blood, should be taken from the arms; and, when practicable, leeches are to be applied to the upper part of the neck, or throat, and the following mixture exhibited :

Take of tartarised antimony two grains, ipecacuanha ten grains, warm water four ounces, spirits of nitrous ether forty drops; mix them, and give one tablespoonful every twenty minutes, until the child begins to vomit. After which, give five or six drops of antimonial wine, with one tablespoonful of Seneka snake-root infusion, every hour, or hour and a half, until the alarming symptoms subside. The continued nausea and perspiration, in this manner produced, are peculiarly beneficial in overcoming the spasm of the throat, and reducing febrile action. If the emetic mixture, at first directed, fails in opening the bowels *also*, castor oil ought to be administered, or a sufficient quantity of Epsom salts, in the Seneka tea, until physical stools are produced.

The evacuations, nausea and relaxation, seldom fail in disarming the disease of its violence, in the course of a few hours. Should the not, however, after being freely excited, afford any material alleviation, a repetition of blood-letting will be indicated, and blisters to

the neck, throat, or between the shoulders, may prove beneficial; or, a few grains of calomel, with antimonial powder, ought to be exhibited every fourth hour, in addition to the Seneka infusion, at intermediate hours, until the alarming symptoms all subside. The warm bath will then be an useful auxiliary. In *milder cases*, the detraction of blood may be dispensed with. Emetics, nauseating doses, laxatives, the Seneka infusion, and blisters, will be sufficiently efficacious.

The *practitioner* cannot be too often reminded, that the condition of the system, and not the name of the disease, must guide him in his prescriptions, or influence his practice in the adoption and prosecution of the important depleting remedies.

When a croupish cough and hoarseness continue for some days, after the more alarming symptoms subside, constipation of the bowels must be prevented, by occasionally administering castor oil, or Epsom salts, and a *mixture*, composed of carbonate of soda six grains, ipecacuanha two grains, laudanum four drops, water four ounces, and loaf sugar one ounce. One tablespoonful of this to be given every four or six hours.

The croup sometimes occurs as a fatal symptom, at the close of malignant sore-throat, as will be hereafter described.

## SECTION II.

INFLAMMATION OF THE TONSILS, &c.; OR  
COMMON SORE-THROAT.

(*Cynanche Tonsillaris.*)

THIS disease consists in a redness and swelling of the tonsils, uvula, and other contiguous parts of the throat. There is a tumour formed, which is sometimes large; deglutition is painful and difficult, conveying a disagreeable, pricking sensation, darting into the ear, an unpleasant clamminess of the mouth, and, in some instances, a considerable degree of fever accompanies it.

All these symptoms, with the *swelling*, often disperse *without suppuration*; although, in many instances, the *tumour* suppurates and bursts, and then heals up without difficulty.

This species of cynanche is not contagious, although it often arises from local causes; and many, alike predisposed, may become affected. It is commonly produced by taking cold, from exposure to damp situations, during spring and autumn, and after sudden atmospheric vicissitudes in winter. The young, robust, and those of sanguinous temperament, are its most usual subjects, although it occurs at all ages, and no constitutions are entirely exempt. A habit of recurrence of this complaint, on taking cold, seems to establish itself over the constitution.

The inflammation and tumour, generally occur in one tonsil first ; afterwards, the other side becomes affected. When much fever attends, *bleeding* will be advisable, and an emetic mixture, as directed in the former disease. When the child has rested a few hours, saline laxative doses, to which a few drops of antimonial wine should be added, will be required to keep the bowels open, and to encourage *perspiration* ; to which there is usually a disposition, and which is of a salutary tendency.

The following emollient and detergent gargle, will also be highly beneficial :—Take of honey one ounce, sulphate of zinc (white vitriol) four grains, warm water eight ounces. The throat to be gargled, or washed six or seven times a day, with some of it. When the tumour has burst, eight or ten drops of muriatic acid should be substituted for the white vitriol, or sage tea, with honey and alum used. If the complaint is protracted, or increased, blisters to the nape of the neck, and throat, will be proper.

When the swelling of the tonsil is large, it may be advantageously opened by lancing it, and the throat frequently gargled, as above directed, or, with a decoction of Peruvian bark, with a few drops of tincture of myrrh.

Should the disease prove tedious, and ulcerations take place, with a croupish hoarseness of voice, the patient is to be considered in danger, and the case must be treated as directed, for *cynanche maligna*,

## SECTION III.

## MALIGNANT SORE-THROAT.

(*Cynanche Maligna.*)

INFANTS and children are the most frequent subjects of *this disease*. It generally attacks the weakly and delicate; but will sometimes spare neither those who are older, nor the more hardy.

The symptoms are, a sense of cold, or chilliness, succeeded by nausea, anxiety, restlessness and fever. A stiffness or uneasiness is felt in the neck and throat, with hoarseness of voice. The internal fauces are of a deep red colour, with some tumefaction. Deglutition is always painful. Ash-coloured spots soon after appear, covering the inflamed parts with sloughs, followed by ulcerations. Catarrhal symptoms usually accompany it, and the watery discharge from the nostrils, &c. (*coryza*) is often acrid, and even excoriating. The dejections, in young children, are also of an acrid property. The pulse is frequent and irregular, but seldom full. Slight remissions occur in the morning, attended with great prostration of strength and spirits. As the disease progresses, commonly on the second day, something like an erysipelatous eruption, appears on the neck and arm, which, in the course of thirty hours, extends to the extremities, being most thick on the hands and fingers. About the third or fourth day, a

disquamation takes place, without material relief, or remission of febrile symptoms.

When the fever continues, after the second day, the ulceration spreads, with frequent bleeding from it, and other gangrenous indications, of a dark or livid colour, with fœtor. It terminates on the third or fifth days. In the progress of the disorder, the fauces, larynx, œsophagus, and sometimes the whole alimentary canal, as well as the respiratory organs, suffer, and a fatal issue may be induced by suffocation or spasm, effusion or mortification. An increasing hoarseness, or wheezing, as in croup, is considered a dangerous symptom.

The common sore-throat frequently subsides, or goes off by resolution, or the inflammation terminates in suppuration; after which, the parts heal up kindly; but the origin, as well as the progress of *cynanche maligna*, are of a different character. There is always here, a quick pulse and continued febrile action, and a tendency, in the parts diseased, to ulceration and gangrene. Croupish respiration is a frequent concomitant.

This distressing form of *cynanche*, is commonly believed to be contagious in England; although sporadic cases occur on this side of the atlantic, during the autumnal months, and at other seasons of the year; or, rather a milder kind, than that above described. The symptoms are protracted in these instances, notwithstanding which, it is frequently of fatal issue.

When the disease is mild, the ulceration is not extensive, and more superficial. A *pale, cineritious slough* succeeds. When the case is more alarming, *this* becomes more livid, or dark with fœtor, and a

frequent tendency to bleed, with coma and delirium. The delicacy, softness, and laxity of the throat and fauces of young children, dispose them to suffer most; consequently, the younger the subject is, the greater the danger.

To allay the irritation of the *system*—to promptly arrest and counteract the *transient* inflammatory action—to obviate the dangerous prostration, or debility, which rapidly follows gangrenous tendency, by quickly diminishing arterial excitement—inducing a new and *salutary* action, and, at the same time, supporting the *vis vitæ*, are indications to be answered.

*Blood-letting* can only be employed in the earliest stage. The following treatment has been found efficacious:—Take of the decoction of Seneka snake-root (polygala) six ounces, tartarised antimony two grains, spirits of nitrous ether sixty drops, loaf sugar half an ounce; mix them, and give from one to two table-spoonful every half an hour, until *vomiting* is freely produced. After two or three hours, proceed with this preparation, but diminish the quantity of tartarised antimony to one fourth of a grain, in the six ounce mixture, and give one table-spoonful every hour and a half, or two hours. A gargle, composed of half a pint of sage tea, one ounce of honey, and fifteen drops of muriatic acid, should be used. The throat and fauces being very frequently gargled, or washed with some of it, in a tepid state. If the bowels are not freely opened, give from two to four grains of submuriate of mercury, (calomel) every two hours, and assist the operation,

with glysters of warm soap and water, or the internal exhibition of a little castor oil, or Epsom salts.\*

Should the disease resist these active depleting remedies, evacuants, after the first or second days, are to be cautiously used ; although costiveness must always be obviated by the means above advised. Blisters to the arms, neck, throat, &c. will be proper ; also, a decoction of *serpentaria aristolochia*, (Virginia snake-root.)

In the course of the disease, I have frequently witnessed the good effects of a gargle, consisting of a decoction of *Seneka*, with honey. It seems to produce a salutary exudation from the diseased and tumid surface, on which it acts, and excites a stimulant effect, which is of a beneficial tendency. A camporated gargle is also of similar utility, prepared as follows :—Take of camphor eight grains, vitriolic ether thirty drops, honey one ounce ; rub these well together, and pour on half a pint of hot water ; when cool, strain off and use as above directed. The analogy in the *modus operandi*, of *Seneka* and camphor, has frequently induced me to substitute the one for the other. A gargarism, composed of capsicum, or common pepper vinegar, honey and water, has also proved very serviceable.

When the gangrenous process has advanced the decoction of Peruvian bark, with tincture of myrrh slightly acidulated, with a few drops of muriatic acid, will be necessary.

The external application of camphorated spirits to the throat and neck, as well as tincture of myrrh and

\* Vide Hamilton on Purgatives.

vinegar, ought not to be omitted ; and the patient's apartment may be occasionally sprinkled with some of these.

The *symptoms* indicating a *favourable* change, occur on the third or fifth days. The redness and swelling of the skin, neck, &c. in these cases, subside—the pulse becomes more regular, or less rapid—the sloughs of the fauces, &c. are cast off—the ulcers fill up—respiration is easier, and the child sleeps quietly, and there is a return of appetite. The change, however, is sometimes very gradual.

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#### SECTION IV.

### MUMPS, (*Cynanche Parotidea*.)

CHILDREN are most subject to this disease after the seventh month. It is of a contagious character, and usually prevails as an epidemic ; for the most part painful, and more distressing than dangerous.

It commences with a slight fever, accompanied soon after with a glandular *tumour* on the neck, below the angle of the lower jaw, which is moveable. This *swelling* increases, and spreads over the anterior part of the neck. As the tumour enlarges, for three or four days, the fever goes off ; after which, all the symptoms, as pain, heat, tumefaction, &c. decline ; so, that by the tenth day, or earlier, the complaint disappears.

As the swelling, in this disorder, subsides, it is not uncommon for the testes in males, and breasts in fe-

males, to become swollen; which, after a few days, spontaneously decline.

Although this disease is commonly so mild as to excite little anxiety, instances have occurred, where fever, pain, tension and swelling of the neck, occasion great alarm. When the tumefaction, especially, recedes suddenly, the brain may be disturbed, and delirium, &c. take place.

In the treatment of mumps, it will be proper to keep the patient on an easy, light diet, to evacuate the bowels, by means of some saline laxative, afterwards, an emetic mixture will be proper. With this intention, *mix ten* grains of ipecacuanha, and *one* of tartarised antimony, with four ounces of warm water, and give one tablespoonful every twenty minutes, until the child vomits three or four times. The parts swollen should be kept warm, by tying a soft linen, or silken handkerchief, over the head and neck.

If the tension and pain become severe, so as to excite a sense of suffocation, or to obstruct respiration, in any degree, a few ounces of blood may be taken from the arm, or leeches applied to the swollen parts. The bowels must be kept open by Epsom salts, &c. and the emetic mixture repeated. When the *tumour* has suddenly receded, blisters to the throat and neck, emetics, the warm bath, &c. are necessary, to obviate evil consequences.

## CHAPTER VII.

## Pneumonic Inflammation, Pleurisy.

(*Pneumonia, Pleuritis Infantum.*)

**I**NFLAMMATION of the bronchiæ (and pleura) is, by no means, uncommon among young children, in winter, but, especially, during the early part of the spring season, when inflammatory diseases are most prevalent. Pneumonic inflammation may be considered an aggravated cold, determined to the chest, analogous to the pleurisy of adults. It is ushered in with a dry and burning heat of the skin, flushed face, oppressed breathing, with sometimes a copious secretion of mucus, or tough phlegm, which the child will swallow, if not removed with the finger, as it is unable to expectorate. The pulse is quick and tense; *a cough* attends, which is most troublesome, when the secretion of mucus is in small quantities, and the pleura most affected. The paroxysms are increased when the *child* is laid down. After the disease has continued a little time, it seems *easier* when lying on *one* side, than the other.

If these alarming symptoms are not soon relieved, dyspnœa, or laborious respiration, restlessness, anxiety, &c. precede a fatal effusion of lymph upon the pleura and lungs—a catastrophe, which may take place on the third, but, more frequently, on the fifth or seventh days.

When the symptoms, which usher in the disease, are violent, blood-letting should be promptly employed. Cathartics and emetics are also necessary. To effectuate the former intention, one or two table-spoonsful of the infusion of Seneka snake-root, to which a sufficient quantity of Epsom salts has been added, and five or six drops of antimonial wine, ought to be exhibited every hour. This will also favour expectoration. An emetic mixture of ipecacuanha and tartarised antimony, may be necessary on the succeeding day, if the fever and dyspnœa increase; and a repetition of blood-letting in the evening. If, *after this treatment*, the case does not improve, powders, composed of two grains of calomel, and an equal quantity of antimonial powder, should be given in a little syrup, every third or fourth hour. At intermediate hours, a spoonful of the Seneka infusion may be exhibited; to which, fifteen or twenty drops of syrup of squills may be added. Injections are also serviceable, if the bowels are not sufficiently open. The warm bath will sometimes be of the most beneficial result; and, in obstinate cases, blisters to the breast, between the shoulders, to the arms, legs, &c. are required.

In certain cases, when the febrile and inflammatory symptoms have subsided, if the bowels have been sufficiently opened, about eight or twelve drops of paregoric, (compound tincture of opium) or two or three grains of compound powder of ipecacuanha, may be given at night.

Should the disease end in suppuration, or abscess within the chest, or on the lungs, which may burst, purulent matter will be coughed up, if suffocation does not

immediately follow, and *hectic fever* characterised, by flushes and quick, small pulse, with night sweats, irregular chills, short cough, &c. &c. These are phenomena, common in *pulmonary consumption*.

Blisters, successively applied to the chest, are here proper. From the fourth to half a grain of powdered fox glove, and one grain of calomel, should be given in syrup, every sixth or eighth hour; and Seneka snake-root tea, with syrup of squills, as before directed.

The child's strength must be supported with proper nourishment, whey, &c.

In this view of the case, fatal consequences are to be apprehended.

**PART II.****CHAPTER I.****Febrile Diseases.**

(*Pyrexiaë.*)

**I**DIOPATHIC fever, in infancy, is generally admitted to be of rare occurrence. The constitution, at this early stage of life, seems to be protected, in a great degree, from the operation of those exciting causes, which produce febrile action, in adults, as well as in *children*, who pass the period of dentition.

Among the ostensible and assignable reasons, are to be noticed, a previous excitement maintained in the system, by the constant influence of *natural* stimuli, as the growth of certain important viscera, as the liver, &c.; also, the bones, and eruption of teeth. These, and the peculiarly bland and mild nutriment, during lactation, destroy, in some degree, the properties of miasmata. The vis-incita, or irritability, at this period, constantly predominates over sensibility. The sanguiferous system is sympathetically affected, by the excitement induced by the causes adverted to; consequently, as has elsewhere been remarked, the infant pulse is always rapid. Vide chap. 1, sect. 3.

Among the causes which shield the infant constitution from the destructive agency of atmospheric poi-

sons, which, at other periods, produce specific febrile disease. During lactation, we should add the regularity of living, and the mild state of the secretions themselves.

*Fever*, therefore, for the first and second years of life, is, for the most part, sympathetic, attending some primary disorder, or accasioned by morbid irritation from some local cause, as in dentition, &c.

The case is different, when the child attains its third year. The predisposition to disease and fever, from *miasm* and contagion, exist—a fact which experience but too strongly attests.

Dr. Cullen happily observes, that those diseases are more strictly “called *fi-vers*, which have the general symptoms of pyrexia, without any topical affection, that is essential and primary.”\*

*Fever* is distinguished by increased heat of the body, succeeding a chill, or shivering; an increased frequency fulness or irregularity of the pulse, and disturbance and disorder of several functions, with diminution of strength. This is the *general character*; but there are certain other phenomena, peculiar to the several species of fever which occur.

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#### SECTION I.

### INTERMITTENT FEVER, (*Ague and Fever.*)

THIS is the most common form of *fever*, produced by vegetable decomposition, or *miasm*. *The symptoms*

\* Cullen's first lines.

are, langour, debility and lassitude, small and irregular pulse, with frequent stretching, paleness of countenance, coldness of the extremities, gradually extending to the back, body, &c. This sense of cold increases, with shivering and rigours; during which, the features are contracted, and the lips quiver.

After this has continued some time, a warmth and flushing takes place, followed by preternatural heat of the whole body, and redness, especially of the face and eyes; pain in the back and joints; head-ache, thirst, &c. attend, with a dry skin, restlessness, full and frequent pulse.

After some duration of these symptoms, a *sweat* breaks out, first about the head and face, and gradually extends all over the body, &c; which, after a certain period, subsides, when a natural sense of feeling and temperature return.

These several states of the system, are called the *cold, hot* and *sweating stages*.

It is further to be remarked, that in the *cold* stage, the respiration is also often oppressed, or uneasy, and sometimes accompanied with a cough; the appetite for food ceases, or is impaired, with nausea and vomiting of bile, and the urine, when passed, is colourless. These, generally, terminate the *first* stage.

In the *hot stage*, a dry, or clammy state of the mouth attends, with thirst; consequently, a suspension of the flow of saliva. The urine is also in diminished quantity, and the bowels are costive. In the *sweating* stage, which terminates the paroxysm, the urine usually deposits a sediment.

The *paroxysm* of an intermittent, is commonly finished in twenty-four hours. The usual intermission, interval (or space, from its termination of a paroxysm, to the commencement of another,) is forty-eight hours, and is named *tertian*.

The next, of seventy-two hours, is a *quartan*. That of twenty-fours, is a *quotidian*. The quartans and tertians, sometimes become quotidians; and these “pass into *remittents*,” being that form of febrile disease, in which there is no perfect apyrexia, between the paroxysms.

Quartans commonly attack in the evening; tertians at noon, and quotidians in the morning.

The *intermittent*, or the most frequent form of country fever, occurs during summer and autumn; and, as before mentioned, is produced by miasma, or noxious exhalation from marsh, and low grounds. It is sometimes difficult to remove, and tedious, and seems to recur long after the cause is supposed to have been removed, by a kind of habit acquired over the constitution.

The indications of cure, are to lessen febrile symptoms, and to obviate the predisposing and exciting causes. An emetic, with tartarised antimony, is first proper. After which, purgatives are necessary to carry off the *excessive* secretion of bile, which takes place in this disease, as well as to favour the salutary termination to the skin by *sweating*. To unite these intentions, the following mixture may be exhibited with good effect:

Take of the decoction of Virginia snake-root eight ounces, tartarised antimony two grains, Epsom salts

one ounce; mix, and give from one to two tablespoonsful, according to the age of the subject, every hour, until evacuations, by vomiting and stools, are freely produced, encouraging the operation with some warm herb tea, and, subsequently, thin gruel, &c. After this, should the fever continue, powders, composed of two grains of calomel, and an equal quantity of antimonial powder, are to be given every three hours, in syrup, until the paroxysm subsides. The thirst may be occasionally relieved by toast-water, or lemonade, and the apartment sufficiently aired.

During the intermission, if the stomach and bowels have been sufficiently evacuated, light nourishment should be allowed, and ripe or baked fruits. Some mild tonic may be exhibited, at intermediate hours, as chamomile, or weak horehound, or Columbo tea. When the stomach will bear it, the infusion of thoroughwort,\* given in doses of two tablespoonsful, every two hours, excites an excellent diaphoretic and tonic effect.

Should the *paroxysm*, recur evacuants are again to be resorted to, and the treatment, as in the first instance, observed; but, during the succeeding intermissions, the Peruvian bark ought to be administered, in substance or decoction, with the Virginia snake-root, or a few drops of compound spirits of ammonia, in each dose, to be repeated every hour, while the fever is off; or, if the stomach is weak, and has discovered no symptoms of acidity, a few drops of spirits of vitriol may be substituted for the ammonia.

\* *Eupatorium perfoliatum*.

*Tonics*, but, especially the Peruvian bark, ought never to be employed, until evacuants have been premised. Their premature exhibition, tend to produce obstruction in the liver, spleen, &c. called ague cakes, appropriately termed *suffocated excitement*.\*

The Peruvian bark is more especially useful in the autumnal intermittents.

An obstinate intermittent, may sometimes be suspended, or removed, by exhibiting an emetic of one grain of tartarised antimony, and eight or ten of ipecacuanha, as soon as stretching and other premonitions of the attack, are observed.

A blister to the region of the stomach, has produced the same good effect.

When the paroxysms have often returned, and resist the system proposed, the mineral solution of arsenic may be tried, in doses of three or four drops, in a small glass of cold water, or chamomile tea, three times a day; or powders, composed of from one scruple, to half a drachm of Peruvian bark, with ten grains of powdered snake-root, five or six times a day. Sulphur, in doses of twenty grains, may also be tried, exhibited three times a day, in a spoonful of milk. Of late years, the sulphate of quinine, has been successfully used, when the foregoing were inadmissable, or the stomach reject them.

The chalybeate preparations, as rust of iron, and the tinctures of this metal, have been useful.

\* Rush's Inquiries.

## SECTION II.

## REMITTENT FEVER.

(*Fever, in which there is no perfect apyrexia, or intermission, between the paroxysms.*)

THIS form of fever frequently occurs, and is excited by the operation of stronger miasm, exhalations from low grounds and vegetable decomposition ; or, is sympathetic, and ushers in some other disorder. It may be induced by various causes, as some indigestible substance taken into the stomach, &c.

This fever comes on suddenly, in most cases, in the course of the evening, or night, with a chill, paleness of countenance, and restlessness. The child complains of head-ache, pain in its belly, or, in the iliac region, sick stomach, and sometimes vomiting attends ; the skin then becomes hot and dry ; the pulse quick and full ; thirst, &c. The bowels are, generally, costive.

An emetic mixture, and after eight or ten hours, a brisk cathartic dose of six or eight *grains* of jalap, and two or three of calomel, will be required. The latter must be repeated every second hour, until the desired effect is produced ; which seldom fail in mitigating the febrile symptoms.

This *treatment* should be followed up, when the disease continues, with saline laxatives and sudorifics, as the alvine discharges are not required to be as copious as on the first attack. The following *mixture* may be sufficient :—Take of Glauber, or Epsom salts, one

ounce, dissolve in six ounces of warm water, and when cool, add forty drops of antimonial wine, and sixty of spirits of nitrous ether, loaf sugar one ounce. Doses of two tablespoonsful, are to be given every two hours; which must be reduced, when the subject is young, to one half.

This fever often exists several days, with an exacerbation, (or accession of symptoms, *at night*.) During each exacerbation, emetics, or cathartics, are necessary; and while the fever continues *high*, the antimonial powder, and calomel, in doses, as directed, under the last section, until a critical perspiration, or abatement of febrile symptoms, take place.

A constipation of the bowels sometimes takes place, with such an irritable state of the *stomach*, that nothing can be administered with effect. Glysters, with warm water and soap, or castor oil, will here be useful auxiliaries, and lemonade, &c. will *allay the retching*; but, no remedy answers this intention so completely, as blood-letting, when the pulse is tense, or full; and in other cases, a blister to the region of the stomach, will be necessary.

It sometimes happens, that a *worm* in the stomach will produce this distressing excitement. Five or six grains of calomel, with a spoonful of castor oil, will, in this instance, prove efficacious, assisted with warm injections, as already advised.

During the remissions, especially when the bowels have been sufficiently opened, the *neutral mixture* will be serviceable. Take of purified pot-ash (salt of tartar) one drachm, lime juice one ounce; *mix*, and after the effervescence, add half an ounce of loaf sugar, and

eight ounces of cold water; two tablespoonsful to be given every hour. This will also tend to remove the irritation of the stomach, and promote perspiration. But, when the abatement of fever is but slight, the eyes are much inflamed, and head-ache *severe*, blood-letting again, in the evening, will be proper; and the powders of antimony, with calomel, &c. If the heat of the body is very great, the epigastrium, and region of the umbilicus, should be sponged with spirits, or a blister may be applied.

It sometimes happens, that while the child retches, some indigestible substance is vomited up; or a worm, or their exists acidity in that organ. In the latter case, magnesia may be advantageously combined with the saline mixtures.

The fever may run on to the third, fifth, or seventh day, or terminate in a low typhus fever, in which the sensorium, or nervous system, becomes highly diseased, and delirium, &c. occur. Blisters to the extremities, as well as to the back and stomach; the camphorated mixture, and liberal use of wine whey, are required, and must not be omitted.



### SECTION III.

## TYPHUS FEVER.

THIS is distinguished by langour, great prostration of strength and spirits, lassitude, loss of appetite, pale countenance, and dulness of the eyes; the pulse is

quick, but not full ; the skin is dry and hot, although not always so ; the surface of the tongue is sometimes free from furr ; but, in the course of the disease, acquires a dark brown colour, and is dry and hard, and sometimes assumes a bright-red appearance. The throat and fauces also partake of this dryness, so that the voice is croupish. Head-ache is not a constant concomitant ; but, the child, when raised up, will complain of giddiness. Picking the nose, and grinding the teeth, are sometimes observed ; but, these are symptoms commonly observed in protracted fever, with children. The exacerbations are sometimes marked by a pain in the loins, back, or knees, generally at noon, and in the evening, when a slight flush of the face and eyes, may be observed.

As the disease progresses, the stools become foetid ; the patient lies in a state of drowsiness and stupor ; when roused and spoken to, it says it feels no pain. In other instances, it is frequently observed to wink, and feels the bed-clothes, or picks at them. The urine is turbid and sparing. In the advanced stage, delirium attends.

The most successful *treatment* has been, that in which *emetics* were early employed ; and afterwards, laxatives of Epsom salts, with magnesia ; or, from three to six grains of calomel, with five or six of rhubarb, or jalap, may be given every two or three hours, until the stools\* lose their foetor. At the intermediate hours, the decoction of serpentaria, should be administered in doses of one or two tablespoonsful, every hour

\* Vide Hamilton on Purgative Medicines.

or two, adding to each dose, five or six drops of spirits of ammonia. Lemonade, toast-water, or weak chicken broth, may be allowed; and ripe fruit, excepting such as are too heavy, or pulpy.

Should much heat be perceived about the body and stomach, bathing the parts with cold spirits, will be beneficial.

Cathartics are never to be pushed so far, as to produce excessive evacuations. *Copious* stools, after the first stage of the disease, or the first day or two, will prove hurtful. Mild laxatives will answer. A drachm or two of magnesia, with ten or fifteen grains of powdered rhubarb, may be combined with eight ounces of the decoction of serpentaria, and given for the purpose, in doses of two table-spoonsful, every hour or two; or, three or four grains of calomel, in a little syrup.

Should a favourable *crisis* be produced, all the foregoing symptoms will gradually subside; respiration will become easy and natural; a perspiration breaks out, and becomes general; sensibility is restored; and a desire for nourishment expressed.

This favourable change, is sometimes produced by a temporary deafness, or an abscess.

When the disease continues to resist the foregoing treatment, blisters are useful, and should be applied to the back, (between the shoulders) breast, the ankles, thighs, as well to the arms and wrists; and, if necessary, *sinapisms* to the soles of the feet. In very low states of the system, bruised *garlick* will tend, more speedily, to produce re-action. Blisters, in these cases, ought never to be allowed to remain on longer than may be sufficient to induce vesication; and where a ten-

dency to gangrene is observed, in the parts blistered, they should be dressed with powder of Peruvian bark, or charcoal. The internal exhibition of Peruvian bark, wine. camphorated mixture, with ether, &c. are necessary, especially when twitchings, &c. are observed. Wine whey, arrow-root, chicken broth, &c. are to be frequently given in this *debilitated* state.

If the belly seems puffed, glysters of soap and water, or castor oil, with salt and water, should be occasionally thrown up, in a moderately warm state, or fomentations to the region of the umbilicus.

This fever may continue to the tenth, fourteenth, or twentieth day; if beyond this, the patient commonly sinks under it, unless some mitigation has been previously observed.

The typhus sometimes originates in contagion; but, in this country, it is frequently entirely unconnected with, and independent of this cause; and, in by far the greatest number of instances, succeeds catarrhal, remittent, and other forms of continued fever.



#### SECTION IV.

### WORM FEVER.

THIS insidious form of fever, may be confounded with that attending *hydrocephalus*, as described in part 1, chap. 4. sect. 6; from which, it can, however, be distinguished, by the *absence* of that distressing affection of the head, which induces screaming, restlessness,

throwing up the hands in expression of pain. Vomiting, *when it occurs*, is less frequent, the tongue less furred, and although the pupils of the child's eyes are frequently, during the disease, *dilated, strabismus*, or squinting, is rarely observed.

The *morning* remissions, are distinctly noticed in a worm fever, and the exacerbations marked with a chill, or coldness of the extremities. A tumid state of the upper lip is, in most instances, observed.

In the first instance, the child droops for three or four days—seems reluctant to play, or amuse itself—becomes irritable—picks its nose—grinds its teeth while it sleeps—its appetite is irregular—febrile heat attends, but thirst is not remarkable. After several days, an aguish chill occurs, succeeded by a smart paroxysm of fever—the pulse is quick, but neither full nor tense—nausea sometimes attends. If the child is asked where it feels pain, it points to the umbilicus, and often to the left iliac region. It now and then complains of its head. Its bowels are sometimes costive, and tongue, at this stage, partially furred. Should retching take place, the child will sometimes bring up worms; but, in many instances, these do not appear until convalescence takes place; or, when the issue is unfavourable, on dissection, these animals are found in the alimentary canal.

It not unfrequently happens, after some duration, the exacerbations become milder, and the child sits up, although there is an aversion to food. This apparent change is *transient*, the bowels are more constipated, and active cathartics and injections are required.

On the first appearance of the disease, it is proper to evacuate the bowels freely. For this purpose, take one

ounce of Epsom salts, magnesia half a drachm, oil of mint, or of worm-wood, two drops ; rub these together, and gradually add six ounces of water. Give the child one or two tablespoonsful every hour, until it operates freely. On the next day, an emetic of tartarised antimony and ipecacuanha, may be necessary. Should febrile symptoms continue, give two grains of calomel, with five of finely powdered *spigelia* (pink-root) and one of antimonial powder, every fourth or sixth hour, mixed in a spoonful of syrup and water ; and at intermediate hours, the neutral saline mixture, as directed in the preceding section, until an easy perspiration, and abatement of fever, &c. are observed. When the exacerbations return, without material alteration, after pursuing this plan for forty-eight hours, discontinue the same, and give a decoction of *spigelia* and *serpentaria*, in doses of two tablespoonsful, with six or eight drops of antimonial wine, every two hours. Keep the bowels open by means of glysters of soap and water, or oil and salt and water, or an infusion of *spigelia*, with a spoonful of olive oil, &c.

If necessary, a few grains of rhubarb, with a grain or two of calomel, administered in a little syrup, will more effectually answer this purpose. The warm bath will also be of service, as well as the emollient application of bitter herbs and spirits, to the stomach and abdomen.

If the disease resists these remedies, blisters are to be resorted to ; and a decoction of Peruvian bark, *spigelia*, and *serpentaria*, given in doses of a spoonful or two, every hour, or five or six times a day, during the remis-

sions. The child's strength must be supported with wine whey, arrow-root, seasoned with wine, broths, &c.

In advanced stages of this disease, active or strong purgatives are prejudicial. Costiveness may be prevented, by castor oil, or some of the means already directed.

If no crisis occurs before the twentieth day, the patient gradually wastes away, as in hectic cases.

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SECTION V.

YELLOW FEVER, (*Typhus Ictorodes*.)

THIS is a tropical disease ; but, it also exists during the hot seasons of many temperate climates in Europe, as well as in America, particularly in Gibraltar, and the southern coasts of Spain. It has, at different periods, been the scourge of most of the atlantic cities of the United States ; and continues to be so frequently the theme of medical historians, that it would be *here* superfluous to enlarge on the subject.

It will be sufficient, for our purpose, to treat of this hydra of disease, in the manner it has occurred in Charleston, as an *endemic*, during the summer and autumn of many years, within the recollection of its inhabitants.

Its recurrence is, by no means, regular ; the reputed precursions have often proved deceptive ; a lapse of several years, have been marked between the dates of its prevalence. After an absence of more than four

years, we have had, recently, to deplore its desolating and unrelenting sway.

Its remote and exciting causes, are involved in much obscurity ; generally speaking, it has been observed to occur after unusually oppressive and sultry weather, especially when the summer has set in early, and moisture predominates. Strict observation may also detect some evidences of a morbid state of the atmosphere; and, although it will require a temperature above eighty degrees of Fahrenheit's scale, to produce it, the disease will continue, with unabated malignancy, until the season of frost. *Sporadic cases* have been noticed, during healthy summers, and are to be traced to some extraordinary circumstances.

Natives, and those who have resided in Charleston, for four or five *successive* summers—infants, and Africans, are, for the most part, exempt from its attack, or the latter, in a very mild form; while strangers, from higher latitudes, and young persons particularly, such as have been absent for several summers, are the almost exclusive subjects.

Much diversity of opinion has been expressed, and continues to be entertained, of the pathology of yellow fever, a subject greatly to be lamented. "The History of Medicine," says a learned physician and philosopher, "must be that of a progressive science, and not of opinions, which, in time, will sink into oblivion."

We have no well authenticated instance of the disease having been communicated by contagion; consequently, the duties of the nurse, and the tender offices of friendship, are without apprehension, assiduously and faithfully rendered.

The *symptoms* are, a slight chill, lassitude, headache, pain of the back, loins, knees, and calves of the legs; soreness or uneasiness about the epigastrium, especially on pressing this part. The eyes are inflamed, painful, and a singularly\* suffused appearance is observable; anxiety and involuntary sighing attend. The *pulse* is full, or tense, and frequent, and sometimes on the close of the second day, is vacillating. The tongue is white, or slightly brown, and furred. Nausea and vomiting often occur to a distressing degree; while the bowels are costive, and sometimes the secretion of the kidneys seems suspended.

These symptoms continue, in an aggravated form, on the *second* day. Although a slight, but transient remission, in some instances, takes place, the evening exacerbation is violent. On the *third* day, a dullness of the eyes, with a dusky\* yellow tinge of the sclerotica, is commonly observed. The patient becomes more restless, ejects nutriment or drink, soon after swallowing, with a frothy phlegm, sometimes mixed with bile. The pulse is more contracted, and the countenance expressive of anxiety, with prostration of strength. About this period, a black matter, resembling coffee-grounds, is vomited up,† and the evacuations bear a resemblance to this, or exhibit a tar-like appearance. Respiration, at length, becomes oppressed and laborious. Delirium supervenes, and the patient expires.

\* Vide Dr. Jackson on Febrile Diseases.

† This is, by no means, however, *invariably* observed; strongly marked cases often occur, and terminate fatally, without *black vomit*.

If a crisis is not strongly marked, before the third day, the issue of the disease will be unfavourable, although it may be protracted to the fifth or seventh days. A *yellow colour* of the neck and chest, as well as the face, is observed after death; and when the patient recovers, a *sallow* complexion continues for some time.

*Treatment.* This disease is an *unique* in character, and consists of two stages. Correctly speaking, there is but one paroxysm, the remission being slight and scarcely perceptible; the functions of the abdominal viscera are generally disturbed; and the brain eventually; but, from the commencement, there is a strongly marked determination to the stomach. On the third day, the low typhus state is observed. Occasionally, when the season is advanced, and cool, this change does not take place, until after the fifth or seventh days.

The indication of cure, consists in reducing the inordinate action of the heart and arteries; in allaying the ardent heat which exists; in restraining *gastric* irritability, and determination to that viscus; and lastly, in supporting the powers of life, and exciting a healthy action. To effectuate these, various methods have been recommended, and are still pursued.

The plan by *mercury*, has many and highly respectable advocates. This consists in previously evacuating the bowels, and sometimes in the use of the lancet; subsequently exhibiting calomel in such a state of combination, and such frequent and repeated doses, as will most speedily and effectually excite its peculiar influence over the constitution, and thereby vanquish the disease.

This, indeed, appears to have become a popular method, and, on some occasions, has been considered the most successful. It must be acknowledged, however, that, in many instances where the practitioner has not been early consulted, it entirely fails ; and it is but too manifest, that in contending with the disease in *young* subjects, mercury does not triumph.

It is one of the properties of this medicine, to increase the irritability of the system ; consequently, the action of the heart and arteries, already under an alarming state of excitement, must have their impetus dangerously augmented. In pursuing this plan, the additional stimulus thus employed, with that operating and morbidly imparted, may overwhelm the constitution, and labouring in the conflict, the little patient is hurried into the grave.

It cannot be denied, that, in other cases, in any circumstance, and under every diversified form, or preparation, several days elapse before the mercurial influence can possibly be excited ; the excitement induced by the disease, transcending the power and stimulus of the remedy ; but, there are not wanting, cases where a salivation has been produced, notwithstanding which, the issue was fatal. Facts, confirmatory of the opinion, above advanced.

Shall we then prosecute a plan, occasionally *tardy*, and too often precarious, when the *work* of disease, disorganization, and death, is rapidly progressing ? and shall we entirely overlook the distressing, dreadful, and permanent consequences of this medicine ?

It would, undoubtedly, comport better with the duty of the physician, and fulfil, with a greater prospect of

success, the indication of cure, to accommodate the treatment to the actual condition of the patient, by reducing immoderate action of the sanguiferous system, if necessary, by depleting, cathartics, emetics, diaphoretics, &c.

When the subject is of robust and plethoric habit, especially, should his pulse be full or tense, much pain of his head, his eyes inflamed, &c. blood-letting is required, and may, perhaps, be repeated with advantage, within thirty or forty hours, of the attack of the fever. This remedy tends to restrain vomiting, diminishes the velocity of the circulation, and prevents a concentration of disease in the stomach. Cathartics of jalap, with calomel, or saline mixtures of Rochelle salts, or Epsom salts, with magnesia, are proper. After which, if the tongue is much furred, an emetic of ipecacuanha, with tartarised antimony, will be required. Sponging the epigastric and umbelical regions, with spirits, or affusions of cold water, have a happy effect.

On the second day, a neutral mixture of salt of tartar, (purified pot-ash) with lime-juice and water, as directed in the preceding sections, will be useful. Lime-water may also be given; two or three spoonful now and then, occasionally mixed with an equal part of fresh milk. These have been often known to restrain the disposition to retch, which is not only an alarming symptom, in the beginning of all acute diseases, but embarrasses or baffles the efforts of the physican.

The period of the disease, however, or state of the pulse, ought to guide and influence in the treatment.

The early application of blisters to the region of the stomach, is often efficacious; and the decoction of ser-

pentaria and Seneka snake-root, if the bowels and stomach have been sufficiently evacuated, will conduce to a salutary perspiration, and support the nervous system.

In the typhus state, blisters to the arms, legs, and between the shoulders, are often required; and in low states, *sinapisms* and garlic, applied to the feet and wrists, will produce *re-action*. The strength must be supported by arrow-root, chicken broth, whey, wine, porter, or good cider, &c.

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#### SECTION VI.

### INFLAMMATORY FEVER, (*Synocha*.)

THIS is distinguished by *redness* of the skin, or surface of the body and eyes, with heat, thirst, uneasy sense of fulness, head-ache, white tongue, restlessness, &c. It seldom occurs at any time of life, unconnected with topical affection, as in the several forms of *cynanche*; or it ushers in some eruptive disease, as small-pox, &c. The symptoms, pain, &c. will, therefore, assist in the diagnosis, or determine the character of the fever.

Evacuants, as cathartics, emetics, blood-letting, cool air and drink, the abstraction of stimulating diet, and light, &c. are indicated. Blood, when drawn in this state of fever, exhibits what is termed the inflammatory, *buffy* coat. It is a glutinous part of the blood, which, "on cooling, is found separated, and lying on the surface of the crassamentum."

Experience fully confirms the accurate opinion of Dr. Chalmers, that youths are more liable, in the spring months, to inflammatory fevers, which are often catarrhal and pleuretic. These, if not promptly treated with depleting remedies, as cathartics, blood-letting, blisters, &c. degenerate into pulmonary consumption. Very young children also suffer by this form of disease. (Vide, part 1, chap. 6.)

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## SECTION VII.

## HECTIC FEVER AND MARASMUS.

THIS also occurs, symptomatic of local disorder, as, in abscess of the lungs, liver, &c. in scrofula and other morbid affections, and is characterised by chills, succeeded by a quick, full pulse, flushing of the face, or a circumscribed redness of the cheek, &c. The remissions are marked by copious relaxing, colloquative sweats, especially at night, and emaciation. The bowels are, generally, costive, but sometimes loose and disordered. The appetite usually weak, but sometimes preternaturally increased.

*Treatment.* The original disease must be attended to. Laxatives are, occasionally, necessary. The fox glove in tincture, infusion, or in powder, also, the internal use of acetite of lead, are serviceable. The patient's diet should be light, consisting of milk and vegetables, and sometimes ripe fruit; but, in cases of extreme debility, wine whey, wine, &c. will be proper.

Febrile disease, of this character, sometimes succeeds the unskilful use of astringents in bowel complaints of children at the breast. It is the *marasmus*, or *atrophia lactentium*. A wasting away, or emaciation, takes place. The hectic seems to be kept up by an organic affection of some of the chylopoetic viscera, or by worms. The child's nutriment will sometimes be found defective, or improper ; or, the milk does not agree with him. The food, or nurse, should, therefore, be changed. A little magnesia, or prepared chalk mixture, will be necessary ; and tonics, as decoction of Peruvian bark. About this time, a few grains of rust of iron in syrup, or, occasionally, a little calomel, will be useful as anthelmintics.

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SECTION VIII.

MESENTERIC FEVER, (*Tabes Mesenterica*.)

CHILDREN, between the third and ninth years, are the most frequent subjects of this disease. It often succeeds some previous visceral complaint, but may originate independently. Its distinctive characters are, a slow fever, of irregular form. There is, commonly, however, an evening exacerbation. Debility, emaciation, costiveness, but now and then diarrhœa, attend. The complexion is sickly, wan, or sallow ; the belly tense and tumid, with aching or uneasiness, chiefly of the right side, just above the umbilicus ; sometimes of

the back, which is increased by stretching, or endeavouring to extend the body; now and then an acute pain is felt.

The child, at length, becomes restless, loses all inclination to play, the appetite is impaired, sometimes there is a loathing of food. The fever, at night, increases, the tongue is covered with a brown fur, or, now and then looks as if spread with gruel; the pulse contracted and quick; the skin cold and clammy; copious sweating about the head, and, in some instances, the feet swell. The child, after lingering, beyond all expectation, for weeks, and even months, expires without convulsions, or scarcely a struggle, the powers of life being completely expended.

The disease is erroneously ascribed to worms, and is often confounded with the former; from which, it can be distinguished by a due regard to the symptoms.

In two fatal instances, I have known the depraved appetite of dirt-eating, connected with it.

Dissections discover an induration and enlargement of the mesenteric glands; sometimes a partial suppuration, schirrosity of the left lobe of the liver, and other morbid appearances of the glands. An obstinate costiveness attends throughout the illness of the patient; and also a cough, which, however, at times, would entirely subside.

In treating this disease, the greatest prospect of success will arise, from active remedies early employed.

Like many others, it is slow and insidious, but fatal, if its progress is not speedily arrested. Gentle emetics, adapted to the age and constitution, are, in the first stages, proper, and have a happy influence on the sub-

sequent treatment. Cathartics are also essential; the bowels may be freely opened with rhubarb, or jalap, in doses of six or eight grains, and three of calomel; or, the occasional use of castor oil, or Epsom salts. Friction, over the abdomen and stomach, with the *hand*, ought to be frequently employed, or mercurial ointment may be rubbed on these parts;\* or blisters, *successively* applied between the epigastrium and umbilicus, renewing them as often as they dry up.

To obviate tenesmus, the patient should drink freely of barley water, or flax-seed tea. When the weather is cool, flannel must be worn next to the skin; and after evacuants, a regular attention to the state of the bowels. A small cup of Columbo, or wild horehound infusion, with five or six drops of tincture of fox glove, should be given three or four times a day. Gentle and frequent exercise in the open air; and, as a last resort, a change of climate.



## SECTION IX.

## RHEUMATISM.

ACUTE rheumatism, or a rheumatic state of fever, is not an unfrequent occurrence in this country, in children; after the seventh year, during a wet autumn, or a cold, damp spring, it is generally brought on by lying,

\* Dr. Fletcher, in the first volume of the American Medical Recorder, speaks, with confidence, of the efficacy of laxatives and warm bathing.

or setting in some cool, moist place, after being overheated. The parts most affected, are the *hips*, knees, ankles, or wrists; sometimes the extensor muscles of the neck suffer.

The symptoms are, chill, succeeded by heat, restlessness, fever, thirst, the tongue is white and coated, the pulse full, frequent, and tense, indicating inflammatory action. *Stiffness and pain* are, soon after, experienced in some part abovementioned, which, in a few hours, become acute, and almost insupportable—the *pain* is aggravated by moving the limb, or part.

The febrile symptoms usually remit towards morning, but the pain continues.

After the third day, the paroxysms are milder, and the affected part becomes red and swollen. About the seventh, or ninth days, when suitable remedies have been used, the disease entirely subsides; or, swelling and lameness of the part remain, constituting the chronic form of rheumatism.

As this disease is highly inflammatory in the first instance, the *antiphlogistic* treatment will, alone, mitigate its severity, arrest its progress, and prevent the chronic stage.

When acute pain and fever attend, and the subject is plethoric, or robust, blood-letting will be adviseable. After which, an evacuant mixture, composed of a solution of Epsom salts and tartarised antimony, should be administered, at repeated doses, until the emetic, and subsequent cathartic effects, are freely produced. On the succeeding days, *two grains* of calomel, with the like quantity of antimonial powder, should be administered every fourth hour, until the fever remits, or per-

spiration is excited. In aid of this intention, a spoonful or two of Seneka tea, with sugar, may be given at intermediate hours; and, occasionally, a little Epsom salts. If the bowels are disposed to be confined, the patient should be allowed gruel, toast-water, or sage tea, &c. The parts pained, ought to be kept at rest on a pillow, in bed, or in a sling, if the upper extremity is affected, and bathed, now and then, with vinegar or camphorated spirits. In more protracted cases, the oil (or spirits) of turpentine, is an useful embrocation.

If no material mitigation of pain, &c. take place in three or four days, blisters to the parts are serviceable. The powders, directed above, are to be omitted after the second day; and an infusion of *Seneka*, with Epsom salts, administered every fourth hour, with five or six drops of antimonial wine, and the like quantity of spirits of nitrous ether, to promote evacuations, and a free diaphoresis.

When the case is protracted, beyond the fifth or sixth days, and the fever subsides, leaving the parts pained, one or two grains of the compound powder of ipecacuanha, (Dover's powder) may be given, occasionally at bed time, in a little tea. The patient's strength is to be supported with arrow-root, chicken broth, and sometimes diluted whey.

In obstinate cases, five grains of powdered guaiacum, should be given in syrup, every other day, and the affected parts covered with leaves of datura, *stramonium*, (Jamestown weed) previously moistened with vinegar. Electricity has been resorted to, with great advantage, in some cases.

## SECTION X.

## DYSENTERY.

THIS is to be considered as intestinal form of *fever*, and commonly occurs during cold, wet weather in the spring, or autumn. It is often produced by taking cold, or by suppressed perspiration; also, from indigestible or improper diet. Children, under seven years, are seldom afflicted with it; and, as long since has been observed by Dr. Sydenham, they have it in a slighter manner than grown persons, and it is managed with a greater prospect of success.

*Symptoms*—chill, succeeded by febrile heat, headache, thirst, the tongue white, sometimes furred, a frequent desire to stool, accompanied with severe pain in the bowels. The passages consist of little more than mucus, streaked with blood, which afford no relief to the patient. The complaint is usually more troublesome at night. Loss of appetite and nausea, also attend. The disease is believed to be seated in the large bowels.

The *treatment* consists in allaying the febrile symptoms, mitigating the irritation of the bowels, removing the *tenesmus*, and restoring the natural functions of the bowels.

An emetic of *ipecacuanha* is, at first, proper, and afterwards, a cathartic mixture, consisting of one ounce of Glauber's salts, six ounces of warm water, and one ounce of brown sugar. Two table-spoonsful to be given every hour, until physical *stools* are produced. When

these indicate acidity in the bowels, by a green appearance, &c. the following mixture will be required:— Take of rhubarb twelve grains, ipecacuanha six grains, magnesia half a drachm, mint-water half an ounce, water eight ounces. After the cathartic mixture, begin with this, and give from one to two tablespoonsful every hour, until the mucus and green stools disappear. If, however, the pain of the bowels and dysenteric passages continue, the cathartic mixture ought to be repeated. At bed time, after evacuants, on the second day, six or eight drops of laudanum may be given, or one or two grains of compound powder of ipecacuanha. The warm bath is also beneficial. As there is an abrasion of the mucus of the bowels, mucilaginous drinks, as thin gruel, arrow-root, benne\* or flaxseed tea, are proper, and will, in some measure, supply this loss. Animal food ought not to be allowed; nor should any heating spirits, or vinous drink, be permitted.

In the first attack, when the inflammatory symptoms are strongly manifested, bleeding may be necessary; and afterwards, in violent, or obstinate cases, blisters to the epigastrium are serviceable, especially if the stomach is irritable; also, to the wrists, arms, &c. In protracted, or chronic cases, calomel, with opium, will be beneficial; and a decoction of Peruvian bark, with a few drops of laudanum, occasionally, to support the patient's strength, and allay the irritability of the bowels.

The symptoms indicating danger, are coldness of the extremities, a sudden abatement of pain, vomiting, delirium, hiccup, which generally denote a gangrene of the bowels.

\* *Sesamum orientale*, (an infusion of the leaves in cold water.)

## CHAPTER II.

## Eruptive Diseases.

## SECTION I.

SMALL-POX, (*Variola.*)

**T**HIS is a contagious, inflammatory, *febrile* disease, which, on the close of the third day, and, in some cases, earlier, is attended with an eruption, and ceases on the fifth. The eruptions become pustules, suppurating in the course of eight days; and afterwards, forming scales, or scabs, which leave depressions on the skin, called *pits*.

There are *two species* of small-pox generally observed, namely, the *distinct* and the *confluent*.

*First*—the *distinct* small-pox (*variola discreta.*) Symptoms—chill, or shivering, particularly a coldness of the feet, succeeded by febrile heat, pain in the back and loins, severe head-ache, drowsiness, nausea and vomiting. On pressing the pit of the stomach, the child complains of pain. As the disease advances, the fever increases, the face flushed, eyes suffused, a starting, grinding the teeth, and stupor, are all remarked. Just previous to the eruption, which, in this species, takes place on the beginning of the fourth day, children, who have passed the period of teething, sometimes have one

or more fits ; these, however, are not unfavourable, and precede the *mild* kind. The symptoms commonly abate when the *eruption* comes out. It is *first* of a pale red, appearing on the face and neck, gradually extending to the other parts, and lastly, to the extremities. In very favourable cases, the eruption is entirely out, on the beginning of the fifth day.

These gradually inflame and enlarge, and the spaces between them are swollen ; the whole then acquire a florid red appearance, especially in the face, where the eruption is greatest. The eyelids are, also, so much affected, as, sometimes, to close. The hands and fingers also swell. As the pustules are filling up, some degree of soreness of throat, and hoarseness, will be noticed. On the fifth and sixth days, they contain a limpid fluid, with *white* elevations. On the eighth, suppuration gradually takes place, and yellowish matter is formed on the surface, assuming a rough-white appearance, the pustules having increased to the size of small *peas*. On the *eleventh* day, the *matter* has exuded, is discharged, or begins to be absorbed, and dry or scale off, and are succeeded (although not in mild cases) by pock-marks, or pits. By the *fourteenth* or *fifteenth*, the disease has run its course. On the *seventeenth*, the marks are a little elevated above the skin, and still look red. On the *twentieth*, they become smooth and flat.

From the first appearance of the disease, however, and during the process of suppuration, some variety is observed.

In young children, the eruption is ushered in with a convulsive fit ; while, in those who are older, and in adults, a tendency to sweating is observed. It is gene-

rally remarked, in very mild cases, that the eruption appears early on the fourth day, *less copious*, and *ceases sooner*, than in those which are unfavourable. The face is *sometimes* swollen, but more so in the severer kinds. The milder the kind, the sooner suppuration takes place, and the disease terminates more speedily.

In the *second kind*, or confluent small-pox, (*variola confluens*) also called the black or malignant species, the symptoms, above described, occur, but in a more violent, or aggravated degree, as fever, pain, uneasiness, or anxiety, nausea, &c.; the pulse is more frequent, but not full, corresponding with the *typhus*. Stupor, coma, and delirium, often attend; and, in infancy, convulsive fits, on the first days of the disease, which are sometimes fatal, *previous* to the eruption.

There are some other peculiarities which distinguish it. The eruption appears earlier on the third day. The fever and concomitant symptoms, do not decline at this period, as they do in the eruption of the *distinct kind*, but only abate in a slight degree. On the sixth day, the fever increases and continues on; under which the patient sinks, commonly on the eleventh day. An efflorescence, or rash, sometimes ushers in the eruption; the pustules are more numerous, and not so much elevated above the skin, or irregular. When suppuration takes place, they run into each other; the matter is not yellowish, but of a dark or brown colour, never acquiring the same maturity, or consistence, as in the *distinct*.

It is observed, with great correctness, that the *slower* the eruption is, in coming out, in *either* kind, the more *favourable* the prognosis.

Generally, about the fourth day, a spontaneous flowing of saliva takes place, in well-grown children and adults, resembling that produced by mercury, but without its fœtor, and this continues until the tenth day; but it does not occur in very young subjects, a diarrhœa being the most frequent attendant.

In the confluent small-pox, from the sixth to the eighth day, in consequence of the swelling and suppuration, the face and body present a most loathsome appearance. The greatest violence of the disease, is determined by the quantity of eruption in the face, and *vice versa*. The eleventh day is the most dangerous, as it then frequently proves fatal; but, in the *distinct kind*, the eighth is the most critical.

The *method of treatment*, must be entirely regulated by circumstances. It is evident, from the foregoing sketch of the disease, that a material difference exists in the order or violence of symptoms, accompanying the two species described, in the first attack, as well as during their progress, in the state of the pulse, &c. the most correct mode of proceeding, will be, to prescribe for the condition of the patient, and adapt the remedies to the urgency of symptoms.

In the *first instance*, pain, febrile heat, and restlessness, are to be moderated by evacuants, cool drink, and air, &c. For this purpose, Epsom salts ought to be given in efficient doses; or, if the child is subject to worms, a few grains of calomel may be given previously. Cool and fresh air, and toast-water, or cold water, should be allowed. The child, if not weaned, must not be permitted to remain in the nurse's arms, or at the breast, longer than may be necessary. It should be

laid on a mattress, and not near the fire, if in winter, and in some cool place in summer, for the pustules are most thick, on those parts which are kept covered, or are most warm, and the danger is proportionate to the quantity of eruption on the face and neck. The diet must be light, and no animal food allowed. Emetics of ipecacuanha, and tartarised antimony, are proper, after the foregoing; to be exhibited, as directed in the cure of fevers. These are, especially, indicated when the stomach is oppressed, and during the progress of the symptomatic fever; and the neutral mixture, (see chap. 1, sect. 2, of part 2.) lemonade and cool drinks, are also serviceable. Costiveness is to be obviated, by gentle laxatives and glysters. While the eruption is advancing, it is improper to administer *active* medicines, or, on the eighth or ninth days. At the close of the disease, when the scabs fall, or dry off, some laxative medicine, however, may, with propriety and advantage, be given.

In the more violent form, the *confluent* species, the antiphlogistic treatment, as cold air and drink, with laxatives, are also necessary. In the earliest stages, an emetic may be serviceable; but, the evacuant plan must not be pursued too closely. The state of the pulse, and prostration of the system, commonly render such a course injudicious. The neutral mixture, gentle laxatives, or glysters, lemonade, &c. will serve to moderate the symptoms. A few grains of calomel, on the first or second day, may be useful in some cases. All kinds of ripe fruit, oranges, &c. are here grateful to the patient, and may be allowed. The concomitant soreness of throat, should be relieved with gargles of sage

tea ; and afterwards, a decoction of bark, honey, and elixir of vitriol. When diarrhœa takes place, one or two grains of the compound powder of ipecacuanha, or five or six drops of laudanum, with mucilaginous drink, or nourishment, as arrow-root, with cinnamon, &c. are to be given. As the pustules fill, and during the suppurating process, the decoction of Peruvian bark, with a few drops of elixir of vitriol, chicken broth, arrow-root, and even whey, or wine, may be required to support the strength of the patient.

If alarming convulsions, or delirium occur, blisters to the nape of the neck and head, sinapisms to the wrists, &c. are necessary. These applications, as well as the warm bath, are peculiarly *useful*, when the eruption suddenly recedes. The camphorated mixture, and decoction of Peruvian bark, with four or five drops of compound spirits of ammonia, every hour or two, also, wine whey are required to support the constitution, and re-produce the eruption.

In cases, where the eruption and inflammation affect the eyes, the colyria, &c. advised for ophthalmia, are serviceable.

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## PROPHYLACTIC REMEDIES.

THERE are two methods of protecting the system from the violence of small-pox, or of entirely destroying the susceptibility to this dreadful disease.

*First*, by *inoculating* with small-pox matter ; *second*, by *vaccinating*.

*First—by Inoculating.*

Rather more than a century has elapsed, since the introduction of the system of inoculating with variolous matter, with a view to introduce into the constitution, a milder form of the disease, than that which is excited in the *natural* way, by the operation of contagion. The advantages were so incalculably great, that, previous to the discovery of cow-pox, inoculation was almost universally adopted.

When a choice of subjects can be safely made, it would certainly be proper, to avoid inoculating newly-born infants, as well as children, who are teething, or such as are afflicted with any cutaneous disease; but, there should be no unnecessary delay, as the child may, in the mean while, take the small-pox in the natural way.

Children, three years old, and upwards, especially of a gross habit, may be prepared for the disease, for a week or ten days, by giving, every second or third night, two or three grains of calomel; and on the succeeding morning, a laxative dose of Epsom salts, or a few grains of rhubarb, when the calomel does not purge. The manner of inoculating is perfectly simple. A very slight scratch, or puncture, must be made in the skin, with the point of a lancet, previously moistened with matter, from a ripe pustule of small-pox.

The upper and external parts of the arm, or fore arm, about five inches below the shoulder, or cubit, as may be determined on, are the usual places for inserting the matter. The puncture, or incision, must not be

made deep, but so, as scarcely to produce one or two drops of blood.

On the third day, the scratch, or puncture, begins to look red, which is an evidence of success. On the fourth and fifth days, the redness and inflammation extend, around the inoculated part, which first becomes hard, when touched, and is succeeded by a *pock*. On the *sixth*, these appearances increase; and, on the *seventh*, or *eighth*, pain is felt in the axilla (arm pit) of the side inoculated. The child now, generally, feels sick, with chill, succeeded by fever, and other symptoms, described in the *distinct* small-pox, but *milder*. On the *eighth* day, and always before the tenth, a pustule, characteristic of the *variolous* disease, is formed, being an elevated pock, rather flattened in the centre, with a circumscribed redness, or inflammation.

The patient should be kept moderately cool, through the suppurating stage, and the state of its bowels attended to. His diet must be light; and after the scab has fallen off, a gentle laxative dose is proper. The sore of the arm heals, without any particular attention. It is only required of the nurse, to prevent its being rubbed, or scratched off, or an ugly sore may succeed.

Sometimes, one or more pustules appear, during the progress of the disease, near the inoculated part, without aggravating the symptoms.

It has been remarked, that many troublesome, constitutional disorders, are removed by the small-pox, or rendered milder by it.

*The second prophylactic remedy is vaccination, (variola vaccina.)*

The practice of inoculating with the lymph, or matter of the cow-pox.

Although an investigation of the astonishing properties of cow-pox, took place at an anterior date, it was not until the year 1798, that the practice of vaccination became general. It is certainly proper, to convey this mild disease into the constitution, as early in life as possible, especially when there is danger from the prevalence of *small-pox*, as an effectual, and, by far, the most desirable preventive remedy.

*Vaccination* may be performed at any time ; but, with most propriety, at some period after the tenth day from the birth. The manner of performing, and suitable parts, are the same as those recommended for inoculation.

The matter, or lymph used, should be taken from a regularly progressing vesicle or pock ; that on the close of the seventh, or beginning of the eighth day, will be found most *active* ; but, the genuine disease may be produced from one rather older, as well as from a carefully preserved scab. The point of the lancet used, should be perfectly clean, before it is charged with the lymph ; and when introduced under the skin, a *valvular* puncture must be made, not deeper than was directed for inoculating. The lancet ought not to be instantaneously removed, but a moment allowed for absorption of the fluid. On the third day, after vaccination, we find this part slightly inflamed. On the close of the

sixth, a vesicle, with an elevated margin, depressed in the centre ; the vesicle exhibits a pearly-white colour. It is observed, that whatever extent has been given to the scratch, or puncture, it assumes, invariably, at this time, a circular, or slight oval form. On the eighth, or ninth days, the depressed centre is most remarkable ; the contents of the vesicle, that of a colourless lymph, destitute of any opacity, or resemblance to pus. On the tenth day, or rather earlier, an areola, of a bright-red colour, takes place, gradually surrounding the vesicle, with an efflorescence, sometimes to the extent of two inches, or more. Swelling, in the axilla, is, at this period, observed, which is sometimes very painful, and attended with slight fever. On the eighth day, the areola recedes, and the centre of the vesicle becomes dry and brown ; a mahogany-coloured scab succeeds, which falls off about the nineteenth day, leaving a cicatrix, or scar, with minute indentations, or pits, within its circumference.

During the progress of the vaccine disease, it is scarcely necessary to administer medicine. As the object of introducing it, is to destroy the susceptibility to *small-pox*, the constitutional influence of the former, ought not to be impaired, or checked. It should, consequently, be allowed to exert its full force over the system. To render this more efficacious, *vaccination* may be performed in two or three parts.

When a deviation from the regular character of cow-pox is observed, especially in its leading features, the circumscribed, elevated margin, and depressed centre, the limpid, colourless contents of the vesicle, as described in the seventh, eighth or ninth days, the areola, &c.

the child must be re-vaccinated. Even should the contagion of small-pox have entered the system, the cow-pox will mitigate its violence.

There are certain peculiarities of constitution occasionally existing, which destroy the predisposition to receive the cow-pox, for a length of time. Among these, have been remarked, an irritation from the gums during the process of dentition, and the existence of certain cutaneous disorders.

But, no considerations should occasion unnecessary delay, or prevent a repetition of attempts, to introduce this inestimable remedy. Instances have occurred, of the system resisting it for a length of time; but, by persevering, complete success has ultimately resulted.

Several kinds of spurious cow-pox, have been mentioned by medical writers, and are met with in the course of practice; but, the genuine disease, as above described, alone possesses the preventive property.

The true cow-pox, notwithstanding the ingenuity of certain skeptics, still triumphs as a prophylactic. In Denmark, and some other kingdoms of Europe, small-pox has become extinct, by the general use of vaccination. In Russia, anterior to the year 1812, more than one hundred thousand subjects, had undergone its beneficial influence.

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## SECTION II.

CHICKEN-POX, (*Varicella*.)

THIS eruptive, vesicular disease, attacks a person but once during life. It is contagious, but generally of a mild character, seldom involving much anxiety. *Varicella*, however, has been mistaken for small-pox, on the first appearance of the eruption; and an aggravated form has prevailed, in some of the northern cities, under the appellation of the *varioloid disease*. It is, in its ordinary character, easily distinguished, by the following peculiarities.

The child, here, as in small-pox, appears languid, loses its appetite, or is affected with nausea and vomiting; its pulse is, at first, quick and tense, or full; the tongue white, or furred, pain of the back and legs, with head-ache, attend; it has, also, a hoarseness of voice, flushed face, and sometimes pain of the epigastrium. In a few instances, the patient starts in its sleep, screams out, or may have a fit; but, all these must certainly be considered as uncommon symptoms. After three days, the eruption breaks out, accompanied with some degree of uneasiness and smarting, first on the breast and back, afterwards the face and head, and then on the extremities. The febrile symptoms may continue after the eruptive stage, but these are never severe; nor do they induce so much sickness as in the *variola*. The *vesicles* of chicken-pox are somewhat broader, and more flat, and very soon fill with a thin fluid, or lymph;

whereas, in the other case, the pock is hard and prominent, and contains *pus*.

The varicellæ scab or dry off, without piting, or leaving scars. They seldom appear thick in the face, and are further distinguished by a characteristic itching. The constitution is not protected from the contagion of small-pox, by this disease.

It must be confessed, however, that, in a few instances, it has borne so strong a similitude to the variola, as to render much attention necessary, to discriminate on the first attack. The reader will consult, with advantage, Dr. Willan's excellent work on cutaneous diseases, in which, some varieties of varicella, are, with great accuracy, described.

Notwithstanding the diagnostics above defined, and the general mild character of chicken-pox, when the variola prevails as an epidemic, the former may put on the livery, or acquire some of the violent symptoms of the latter. At these periods, therefore, in a practical point of view, the distinction may not be important, for the existing condition of the system, will always be the surest guide to the physician.

Cool air, light diet, laxatives, in which a *portion* of magnesia, or soda, is combined, and, occasionally, a gentle emetic, when the stomach is oppressed, or the tongue furred, are required with the treatment.

Bathing the body with warm, or tepid water, will also be serviceable,

## SECTION III.

SWINE-POX, (*Bleb-Pox.*)

THIS disease, has been considered in England, as a variety of the varicella; and, as such, has been described by Dr. Willan. In this country, however, it appears under very different circumstances; the constitutional disorder is but slightly perceptible.

The child seems unwell, or has a feverish skin, and some degree of nausea. On the second day, pustules come out on the body, neck, shoulders, and extremities, seldom in great numbers, and but very few in the face and head. They soon enlarge, become oval, contain a serous fluid, their bases are broad, and much inflamed, but are distinct, and never disposed to become confluent. A troublesome burning, or itching, attends on the third day, and in the subsequent stage. After the pustules break and discharge, scabs are formed, and several successive crops of the eruption break out, which are troublesome and painful, especially about the feet and legs. Children, from the second to the seventh years, are most subject to it, although the disease may be communicated, by contact, to younger children.

In the *treatment* of this, as well as many similar eruptive complaints, I have found an emetic mixture of tartarised antimony, conjoined with some saline laxative, serviceable; or, it may be followed by a solution of Epsom or Glauber's salts, combined with magnesia. The latter must be repeated every third or fourth

so as to produce three or four evacuations. The diet should be light. When the pustules discharge, the parts may be washed with a weak solution of acetite of lead; or, should the ulcers prove troublesome, cover them with a little calamine ointment.

In obstinate cases, I have given two or three grains of calomel at bed-time; and, in the morning, a saline laxative dose; afterwards, the decoction of cinchona, or infusion of camomile; and, occasionally, a little magnesia, which moderately opens the bowels.

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#### SECTION IV.

### MEASLES, (*Rubeola.*)

THIS eruptive, or exanthematous disease, attacks a subject but once during life, and is produced by contagion. The symptoms usually appear ten or twelve days after exposure. Children, who have passed the ages of dentition, are most predisposed. The premonitions are, loss of appetite, and dejection of mind; which last is more remarkable, than in any other complaint.

The symptoms of the attack are, a sense of chill, or shivering, followed by febrile heat, pain in the back, quick and full pulse, anxiety, nausea, and sometimes vomiting, head-ache, chiefly through the forehead, sneezing, inflamed or suffused eyes, which exhibit the strongest diagnostic of measles. To these are added, soreness of the throat, (*coryza*) or watery discharge from the nose, &c.; hoarseness, drowsiness, white

tongue, pain, fulness, or sense of stricture in the chest, and thirst. These phenomena increase, gradually, until about the fourth day, when the eruption, consisting of small red spots, somewhat elevated above the skin, first appear on the forehead, then the neck and chest; and on the day after, on the extremities. By the close of the fifth day, these are, generally, all out; in some parts, they come out in patches; and, in other places, distinct, the intervening skin being natural. The face, eyelids, &c. are observed to swell, and have, on the sixth day, a very vivid appearance. When the eruptive stage is complete, the fever moderates; but, the affection of the eyes, hoarseness, cough, nausea, &c. continue, as well as, dyspnoea, until the sixth day. In common, on the seventh day, the redness and inflammation put on a paler appearance, but, in violent cases, the fever increases, and the eruption acquires a darker colour. After this, it looks mealy, or disquamation and bleeding at the nose, sometimes occur. The symptoms now subside, and the appetite returns, although a looseness of the bowels, or diarrhoea, often succeeds the sickness of stomach.

Among the poor, or where children have not been carefully attended to, or live in confined situations, an eruption about the body follows the measles; a soreness of the mouth, and weak state of health, with irregular chills and fever, swellings about the neck, disordered bowels, &c. These have been all observed, and, in young children, prove fatal.

This is a distressing disease, but is not often fatal, excepting in scrofulous constitutions, when it has been im-

properly treated; or, when the eruption has receded, and the lungs become diseased.

The violence of the symptoms seem to depend much upon the condition of the alimentary canal, or stomach. Indeed, this is to be remarked in almost all exanthematic affections; so much so, as to render it extremely problematical in the opinion of some European physicians, whether rubeola may be considered as an idiopathic disease. In the *Dic. des Sciences Med.* Tome 32, p. 218, we observe, “*La Rougïole n’est qu’une appendice de l’irritation interne.*”

The measles prevailed in the Orphan-House of Charleston, at the beginning of the winter of 1813. As the season advanced, the epidemic was more violent; the catarrhal symptoms were very distressing; and although the eruption was of a large and distinct kind, the affection of the chest was, in many instances, alarming. *Hæmoptius* was not an uncommon attendant. About eighty-seven children were afflicted in the space of five weeks. Convalescence proved tedious; but, the disease did not terminate fatally in any case.

*Treatment.*—The condition of the patient, and existing circumstances, must produce some difference in the mode of practice, in the first instance. In plethoric subjects, when the catarrhal and inflammatory symptoms are strongly manifested, blood-letting will be serviceable, especially when the disease occurs during the winter and the spring. After which, an emetic mixture of tartarised antimony, to which about forty drops of spirits of nitrous ether may be added, will be proper.

The temperature of the apartment, must be neither too cold, nor warm; a moderate degree of light only

should be admitted, and the thirst allayed with flaxseed tea, or barley water, slightly acidulated with lime-juice, and sweetened, if necessary. The bowels are to be kept moderately open with laxatives ;\* for which purpose, Glauber's, or Epsom salts, with magnesia, are most suitable. The child's nourishment should be light, as gruel, chicken water, &c. Ripe fruits may be allowed.

When the respiration continues oppressed, the dyspnoea distressing, and a tendency to local or pulmonary disorder observed, blood-letting may be repeated, if the pulse is full ; and blisters to the breast (or sternum) are necessary, one or two grains of calomel, and as much of the powdered fox glove, ought to be given night and morning. If the cough continues troublesome, or the bowels disordered, give one or two grains of the compound powder of ipecacuanha, at bed-time, occasionally. When the eruption is slow in coming out, or suddenly recedes, the case is alarming. Blisters to the legs, chest and arms, are proper ; and the camphorated mixture, as directed in part 2, chap. 1, sect. 2. The warm bath is here also advisable.

Should the eyes also continue inflamed, or sore, a colyrium of white vitriol, four grains, and eight ounces of water, will be beneficial.

If the disease breaks out in the summer, or during autumn, the lancet must be cautiously used. Blood-letting, indeed, is scarcely admissible. Emetics, laxatives, pectorals, and acidulating drink, will, generally, prove sufficient to mitigate the symptomatic fever, and accelerate recovery.

\* Repeated and active purgatives are improper.

Laxatives may also be advantageously employed, when the disquamation takes place. Afterwards. camomile tea, or Columbo infusion, will restore the strength and appetite.\*

When the constitution has suffered by protracted debility, care should be observed, in clothing the child sufficiently; flannel may be necessary; and, lastly, a change of air, from a damp, or moist, to a high and dry situation.

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SECTION V.

SCARLET-FEVER.

(*Scarlatina, Simplex, Anginosa, and Maligna.*)

A DISEASE, extremely analogous to this, the cynanche maligna, has been treated of in part 1, chap. 6, sect. 3. Perhaps the pathognomic symptom, in the present instance, is the scarlet eruption, which almost invariably attends it. Although an ulcerated throat is usually observed, many exceptions occur.

*Scarlatina anginosa*, is of a contagious character; the symptoms are evolved, for the most part, in the evening, or at night. About five or six days after exposure to the infection, the child droops, feels chilly, or cold, becomes sick at the stomach, complains of pain

\* Various, but unsatisfactory attempts, have been made, to produce a milder form of this disease, by inoculating with the fluid from the vesule.

in his belly, stomach, loins, and extremities ; with restlessness, the pulse is quick and full, respiration uneasy and oppressed, the eyelids are inflamed and swollen. On the second day, a stiffness of the neck, and soreness of the throat, attend with hoarseness, the heat and fever increase, the tongue is, at first, red, but afterwards, furred. About this time, or sooner, the eruption appears, in small points, very thick on the head and neck, spreading to the other parts of the body, and the extremities, so that by the third day, it becomes general, and assumes a deep red, or scarlet colour, which is most remarkable at night ; the patient is, at this time, drowsy ; sometimes coma and delirium come on. On the beginning of the sixth day, the febrile symptoms, &c. subside, the eruption puts on a mealy appearance, and disquamation, with itching, takes place. By the seventh, the disease has run its course.

In the milder species, the *benigna*, or *simplex*, the anginosa symptoms, (sore-throat, &c.) attend, in a very moderate degree, or not at all. The pulse is seldom as full as in the other form ; and the eruption, although very thick, does not assume the dark scarlet hue, being scattered, universally, about the fingers, &c. yet seldom confluent. There are noticed, interstices of healthy, natural skin between them ; the face, notwithstanding, is swollen.

In the *maligna*, all the foregoing symptoms are aggravated ; the pulse is small, irregular, or rapid ; languor and debility, oppressed respiration ; the efflorescence is of a deeper red, or purple, which is communicated to the tongue, internal parts of the mouth, the throat, &c. ; the ulceration on the tonsils, and conti-

guous parts, are dark and sloughing; foetid breath, coma, delirium, &c. In the course of the disease, in some cases, the trachia partakes violently of the general disorder, and the child expires of suffocation, or from a gangrenous state of the parts affected.

*Treatment.*—On the first attack of scarlatina, the following mixture may be given:—Take of Glauber's, or Epsom salts one ounce, tartarised antimony one grain, warm water six ounces, add half an ounce of brown sugar; from one to two tablespoonsful to be given every thirty or forty minutes, until the medicine operates as a cathartic and emetic. If the latter effect is not produced, it may be accelerated, by adding ten or fifteen drops of antimonial wine to each dose. *Professor Rush*, and other eminent practitioners, have extolled the effects of vomiting early in the disease. Gargle the throat frequently with an infusion of Seneka snake-root, or sage tea, with honey, acidulated with muriatic acid, as directed in *cynanche trachialis*. (See sect. 2, chap. 6.) On the succeeding day, three or four grains of calomel may be administered every sixth or eighth hour, while the febrile symptoms continue high. This medicine, as judiciously remarked by the author above quoted, passing over the inflamed parts in deglutition, exerts also an excellent *local* effect. Should the bowels not be sufficiently open, small doses of either of the above salts, may be required. Ripe fruits may be freely given, and the child's strength supported with arrow-root, chicken broth, and other suitable nourishment.

In the malignant form, an active emetic of one grain of tartarised antimony, and five of ipecacuanha, will, in

the first instance, be serviceable ; but, the evacuant system must be cautiously employed. A sudden prostration of strength is to be dreaded. A few grains of calomel, will be sufficient to keep the bowels open. The camphorated mixture, decoction of cinchona, acidulated with vitriolic, or muriatic acid, are early required, and may be given in doses, frequently repeated. Wine whey will be necessary, and arrow-root, seasoned with wine, &c. In the early stage, a blister to the nape of the neck, has been beneficial. Generally speaking, the prognosis may be drawn from the intensity of the scarlet colours of the eruption.

Sponging the body with spirits, has been, in some instances, successfully employed ; and the external use of vinegar, in a tepid state.\* The throat and fauces are to be washed, or gargled with a strong decoction of Seneka, or brandy and water, or decoction of cinchona, to which tincture of myrrh is added.

The symptoms denoting danger, are, coma, dulness, or heaviness of the eyes, oppressed respiration, diarrhoea, petechiæ, and hæmorrhage from the throat, nose, &c. The case sometimes terminates fatally and unexpectedly on the third or fourth day, or may be protracted to the seventh ; and as far as the nineteenth day, with a like unfavourable issue. The glands of the neck, in some instances, are enlarged and tumid, and require lotions of vinegar, or camphorated spirits. Deafness is now and then observed. When it occurs, the ear should be syringed with warm water ; to which, a few drops of laudanum may be added. When this form of scarlatina prevails, as it is generally contagious,\* the

\* I have generally used this term in contradistinction to *infection* ; by *contagion*, is to be understood, an active, morbid prin-

unaffected children ought to be removed, and the apartment well ventilated, and frequently sprinkled with vinegar.

  
SECTION VI.NETTLE RASH, (*Urticaria*.)

THERE are several species of this eruptive disease, enumerated by medical writers, especially by Dr. Willan.\* That which I have to treat of, occurs in childhood, between the second and eighth, or tenth years, is the most common form, and not essentially differing from the same complaint in adults. The most frequently exciting causes are, violent exercise, eating too freely of some indigestible fruits, or certain kinds of fish, especially shell-fish, crabs, &c. The child is, sometimes, suddenly attacked; it complains of sickness of the stomach, with pain, stricture in the chest, or

ciple, emanating from certain diseased bodies, and susceptible of being communicated to those who are predisposed, on a near approach, or contact, as in the case under consideration, or in small-pox, &c. Infection conveys the idea of a poisonous property, imparted to the atmosphere (within some limited place, or point) by marsh, or vegetable decomposition, or the occasional commixture of these with animal effluvia, under peculiar circumstances, in hot seasons. These *miasmata* excite in such as are predisposed, and come within their sphere of action, in the *first instance*, country fevers, (or remittents and intermittents) and in the latter, yellow fever.

\* Cutaneous diseases, vol. 1, p. 301, et port.

dyspnœa, head-ache, lassitude, and drowsiness; rejecting nourishment; febrile symptoms now occur, the pulse quick and full, and the tongue covered with a white fur. On the succeeding evening, a slight chill, or rigour, precedes the eruption, (or wheals.) The efflorescence consists of patches of a red colour, with a troublesome and distressing tingling, or itching.

The nettle rash consists of those oval, or longitudinal elevations above the skin, which are large and flat; the top is white, and surrounded by an efflorescence, or has an inflamed base, as above described. They appear upon the shoulders, loins, thighs, and knees, also, the neck and head, &c. accompanied with a burning sensation. Whatever part itches, and is rubbed, is succeeded by the eruption, which recedes and appears again several times, in the course of seven or eight days, when it commonly declines, or entirely disappears. The eruption is most troublesome at night, and when the skin, or surface, is uncovered. The sickness at the stomach subsides, when the rash comes out. In some constitutions, this complaint prevails periodically, generally during the spring season. Although this complaint does not ordinarily exceed eight days in duration, and is not dangerous, it has, sometimes, been attended with fatal consequences, when it has suddenly disappeared. It has, also, in many instances, occurred in a chronic form, without fever, receding and coming out again, for several weeks and months together.

It is manifest, that this disease is influenced by some disturbance, such as acidity and acrimony in the stomach and bowels. The method of treatment must, therefore, be directed accordingly. An emetic mixture

may, at first, be given, consisting of fifteen, or twenty grains of ipecacuanha, and one of tartarised antimony, mixed in four ounces of water, and given in doses of one or two table spoonsful every twenty or thirty minutes, until vomiting is produced. On the succeeding day, a laxative mixture of Glauber's, or Epsom salts, with magnesia, will be proper, if the bowels are not sufficiently open. The parts of the body, &c. most affected, should be covered, especially when the weather is damp, or chilly. The child's diet must be sparing, light, and easy of digestion. During the course of the complaint, a gentle laxative may be repeated, if the bowels are confined. Afterwards, for several days, some mild sub-tonic, as camomile tea, &c. will be advisable.

The nettle rash is now and then observed during teething, and may proceed from irritation of the gums, &c. Lancing the swollen gum, will be necessary, and some absorbent and laxative, or a gentle emetic of ipecacuanha.

The *urticaria* is not considered contagious.

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#### SECTION VII.

### MILIARY ERUPTION.

CHILDREN are now and then, during warm weather, affected with an eruption of the size of millet-seed, breaking out, generally, about the upper parts of the chest, neck, back, shoulders, and thighs, attended with

heat and a pricking sensation, but differing from prickly-heat. The child is sometimes restless, feverish, and has a furred tongue, for two or three days before the eruption appears, which consists of numerous red minute specks, with watery heads. The complaint may continue two or three weeks, receding at times, and re-appearing in patches, without any serious constitutional disorder.

Young children are not as subject to this disorder, as those who are older, and take more active exercise, which is the usual exciting cause. This affection may also be produced by exposure in some damp place, after being heated.

Saline laxatives, mixed with magnesia, are here proper; or, an emetic may be necessary, when the stomach is disordered, or the disorder continues. The child should neither be kept too warm, nor cool.

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SECTION VIII.

ANOMALOUS ERUPTIONS.

A VARIETY of cutaneous diseases, have been described by Drs. Willan, Clark, Underwood, and other medical authors, under the heads of exanthemata, erythema, rashes, &c. Some of these have occurred under my notice, and are, accordingly, treated of under the respective heads of complaints, incident to infancy, dentition, &c.

Those, in early life, for the most part, when not symptomatic, or connected with some febrile disease,

are produced by acidity, acrimony, or both, disturbing or impairing the functions of the stomach and bowels. These may generally be removed, by an emetic of ipecacuanha, or some laxative, combined with magnesia; or, (if the bowels be too much opened) prepared chalk, or the internal use of lime-water, with milk, as already advised.

The prickly-heat, (or *lichen tropicus*) of Dr. Willan, is very common among children, as well as adults, towards the close of the summer, especially among those who are strangers to the climate. A sensation of burning and pricking, with itching, attends it, which is almost insupportable. The eruption comes out in patches, over the shoulders, breast, &c. consisting of extremely minute pimples, or vesicles; and when rubbed, a scurf succeeds it, rarely accompanied with pain. It disappears and breaks out again, several times during the warm season, and is considered salutary in its tendency. A little laxative medicine, now and then, or cream of tartar, with sugar and water, may be given, when this proves troublesome.

External applications are not necessary. Although in some tropical countries, lime-juice is a common remedy, the subject should subsist on diet light, and easy of digestion.\* Every article, which may tend to heat the system, both in food and clothing, ought to be dispensed with.

In eruptive complaints, of no definite character, on similar principles to the foregoing, cleanliness, and frequent bathing, or washing, cannot be too strictly enjoined.

\* Vide, Dr. Hillary's diseases of Barbadoes.

## CHAPTER III.

### **Cutaneous Disorders and Local Affections,**

*Unattended with Fever.*

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#### SECTION I.

#### ITCH, (*Psora, Scabies, &c.*)

**T**HIS odious disorder, frequently arises from a neglect of cleanliness; it is also thought, to proceed from too continued a use of salt food, or farinaceous diet. Animalculæ, discovered in the vesicles, or pustules, are rather effects than causes, and microscopic observations, may detect them in many of the morbid secretions, although they have been mentioned among the causes of itch, herpetic eruptions, &c.

The itch first appears in small pimples, on the internal parts of the wrists, near the hand, and between the fingers, the upper and lateral parts of the thighs, &c. These become vesicles, or rather, small pustules, attended with an intolerable desire to *scratch*, which, when indulged, the watery heads are rubbed off, and inflammation and ulceration follow. When the disorder has not been properly treated, or neglected, the pustules be-

come larger, contain acrid matter, and are ultimately diffused over the body. When it has continued long, the general health will become impaired, and the eruption acquires so great an ascendancy over the cutaneous system, that it cannot be extinguished, or eradicated, without great difficulty, and skilful management; indeed, in some constitutions, it has baffled the best exertions of the practitioner.

The most effectual remedy for the itch, is sulphur; if seasonably applied, and duly persevered in, it will rarely fail in accomplishing a perfect cure.

The external application of this mineral, is of most importance; it may be used in the form of ointment, mixed with equal quantities of lard, fumigation, or in baths.\* The last method has been strongly recommended by Sir Arthur Clark, M. D. in an essay on diseases of the skin, published in London, in 1821.

The bath is, unquestionably, safe and eligible for very young subjects, and may supply the place of the more disgusting ointment. A few grains of the mineral, in a sublimed state, may also be given, mixed in milk, daily, for several days, without bad consequences.

For a child, of two years and upwards, the simple ointment, with sulphur, (as above directed) should be carefully rubbed over the affected parts, every night, previously washing with water and soap. A teaspoonful of sulphur, may also be administered, every second

\* This may be prepared, by pouring two quarts of boiling water upon two table-spoonful of sulphur, or bruised brimstone. When cool, the parts affected are to be washed with some of it, night and morning.

or third morning, in milk. The linen and clothing are to be frequently washed. The diet should be light, and salt, or stimulating food, avoided.

When this disorder has not been attended to, or becomes inveterate, resisting the ordinary remedies, the black, or Ethiop's mineral, (sulphur of mercury) may be exhibited, with good effects, in doses of five, and up to ten grains, every night, mixed in syrup, repeated for three successive nights ; then suspending the medicine, and after as many days, resuming it. The patient may, now and then, be purged with Epsom salts. In these cases, an ointment, composed of equal quantities of lard, and ointment of the *nitrate* of mercury, (or citrine ointment) may be used every second or third night, alternating its use with sulphur and lard.

The decoction of tobacco leaves, has been recommended as an efficacious detergent lotion for itch, or, an ointment made with this plant ; but, these cannot safely be employed with young subjects.

When the disease is removed, the child's clothes must be changed, the bedding, &c. carefully purified, and washed, and cleanliness observed.

This disease is so infectious in its character, as to be easily communicated ; and, without due care, will be re-introduced into the system.

## SECTION II.

## RINGWORM, OR TETTER.

(*Serpigo, a species of Herpes.*)

THIS is a very common cutaneous disorder, and consists of an accumulated mass of minute vesicles, crowded together in clusters, with inflamed bases, accompanied with some degree of smarting, (or itching) which is increased by rubbing the parts; these will afterwards spread to the extent of one or two inches, or more, in circumference, and seem to contain an acrid matter, or humour. They, generally, occupy a circumscribed space, and appear upon the upper parts of the chest, neck, and face, especially the cheeks, upper lip, &c.

These affections are often difficult of cure, and liable to return periodically. The sulphur ointment, when early employed, will remove them; but, the most effectual application is, an ointment prepared with equal quantities of citrine ointment and lard, rubbed upon the part at night, and washed the succeeding morning, with warm water and soap. When the disorder proves tedious and obstinate, *argentum nitratum* may be rubbed over it. The tincture of cantharides is, sometimes, successfully used; also, *hydrargerus muriatus*, (corrosive sublimate) in lime-water, as directed in page 68; but, when the subject is young, in all cases, it ought to be diluted with an equal part of water. It is believed to be infectious. No constitutional disorder attends it.

## SECTION III.

SHINGLES, (*Herpes Zoster, Zona Herpetica.*)

THIS affection breaks out, most frequently, upon the breast, neck, and, now and then, is seen upon the loins. The disorder consists of numerous small vesicular eruptions, at first white, afterwards of a bright red. These come out in clusters, extending in a circular manner, like a zone, or belt, about two inches in diameter, and sometimes entirely surrounding the body. I have frequently met with this singular complaint among children, who have passed the second year. There is an itching attending it, but not as distressing as in other eruptions. When the part is rubbed, the watery heads of these vesicles are rubbed off, and a scurfiness succeeds. The child's appetite is impaired, and he has some degree of nausea; but the general health is very slightly disturbed.

In the two last cases, which occurred under my care, an emetic of ipecacuanha, with a small quantity of tartarized antimony, brought away *acid* bile, and removed these symptoms. The eruption was treated with exsiccants, being dusted with flour. Saline laxatives, combined with magnesia, will, occasionally, be serviceable. Should the parts ulcerate, or become inflamed and painful, a discutient ointment, of half a drachm of white vitriol, with an equal quantity of camphor, mixed with one ounce of lard, will prove useful.

The eruption disappeared, in almost every instance I have met with, in the course of ten days.

## SECTION IV.

DANDRIF, (*Pityriases Capitis.*)

THIS is an eruption of a scurfy, or scaly appearance, breaking out on the temples and forehead of children, where it is observed to be white and mealy. It forms again after being rubbed off. On the vertex and back parts of the scalp, it resembles small scales, or tiling.

The cure is to be accomplished, by cutting off or thinning the hair, and washing the head with warm water and soap, which is most effectually done with a brush.

A lotion, composed of two drachms of carbonate of potash, (pearl-ash) dissolved in eight ounces of water, is found serviceable. It sometimes proves troublesome, and requires attention to cleanliness, and daily perseverance in these remedies.



## SECTION V.

SCALD-HEAD, (*Tinea Capitis.*)

THIS often proves a tedious, troublesome, and distressing disorder. It consists of many small ulcerations, on different parts of the head, diffused among, and in connection with the roots of the hair, and discharging a thin *acrid* and viscid humour. This re-action is first effused from small vesicles, which gradually scab

and fall off; successive crops of these form, becoming large until the whole scalp, in some instances, seems matted with the hair.

The sebaceous glands are commonly believed to be the seat of the disorder, especially in scrofulous constitutions. It very frequently, however, occurs independantly of this cause. Children, but twelve months old, are sometimes afflicted with it, but of a milder form than that which occurs at more advanced stages.

The causes producing scald-head, are believed to be similar to those which induce certain other cutaneous affections; among these, are a want of cleanliness, and poor and unwholesome diet; although it must be acknowledged, that tinea is sometimes met with in families, in affluent circumstances, who are careful in managing their children.

In the mild species, the ulceration is superficial; but when it has existed long, or been neglected, the disorder is more deeply seated, the pericranium, and even the bones of the head are affected.

The remedies employed, in the cure of this disease, are, for the most part, of a topical nature. In cases which have long resisted these, internal means are also proper. A few grains of calomel, may be given as an alterative, combined with one grain of cicuta, once or twice a week; also, an infusion of sarsaparilla and guaiacum, sassafras, &c.

The external applications claim our attention, as most important in the cure. To render the effects more certain, the child's hair should be cut, or shaved off, (as their roots present a material obstacle) and the head well washed twice a day, with soap and water.

To fulfil the intention completely, a brush must be employed; after which, a plaster, composed of pitch or tar, with sulphur, spread on oil-cloth, skin, or bladder, should be laid over the scalp, covering all the ulcerated part. This should be occasionally, or, in a day or two, removed, and the head washed, as already directed. A lotion of elder decoction, or white vitriol and water, in the proportion of one drachm to eight ounces of water, or lime-water; an ointment of mutton-suet, with one-third of ointment of nitrate of mercury, will, in obstinate cases, prove effectual.

In some instances, the unyielding character of this disease, seems to depend upon the rapid growth of hair. On these occasions, the pitch-plaster, with sulphur, will be serviceable. Linen rags, soaked in a lotion of lime-water, which has been digested on sulphur, and laid over the sore parts, will prove beneficial, by keeping down for a long time, or destroying the roots of the hair.

The scald-head is believed to be contagious, and is communicated by contact.



#### SECTION VI.

### STYE, OR STITHE, (*Hordeolum.*)

THIS is a painful, inflammatory tumor, which suddenly appears, and projects from the edge of the eyelid, near the internal, or greater angle of the eye, resembling, in size, a grain of barley, and of a bright-red co-

lour. The pain is, sometimes, very severe, and the inflammation spreads a little distance from its base. It seldom terminates in dispersation, or resolution, but slowly progresses to suppuration, and that not completely; for, in some instances, under any treatment, which may be adopted, it does not reach that stage for three or four weeks. In consequence of this slow progress, the styne is supposed to consist of obstruction, or disease, in one of the glands of the eyelids, (glands of meibomeus.)

Discutient applications may, at first, be tried; for this purpose, an ointment, composed of ten grains of white vitriol, one grain of camphor, and two drachms of lard, should be rubbed over the tumor, two or three times a day. When this fails, after several days trial, and the swelling continues red and painful, a small poultice of yolk of egg, honey, and flour, or milk and bread, must be laid over the part, and renewed two or three times a day; and, when suppuration is complete, the *matter* let out, by a sufficient incision, with a lancet. If the tumor be not freely emptied in this manner, the matter must be squeezed out, and one or two warm poultices subsequently applied, which will remove the inflammation and swelling.

It generally, however, becomes necessary, to destroy the little sack, or membrane, containing the matter, by cautiously applying to it, a solution of the sulphate of copper, or the lunar caustic, which is more effectual. This may be done, by dipping a camel's-hair pencil in a solution of the latter, and applying it to the sack when emptied. This process is necessary to accomplish a radical cure. When omitted, a troublesome re-

currence of the tumor, with pain and swelling, ordinarily take place.

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SECTION VII.

WHITLOW, (*Paronychia*.)

THE paronychia is a well known, painful tumor, or abscess, situated at the end of the finger, near the nail. There are instances of their occurring, also, on the toes. A most distressing pulsation and throbbing is felt in the part, for several days before suppuration takes place. It is generally necessary, to give a free discharge to the matter, by opening with a lancet.

These affections often arise without any assignable cause; they are sometimes produced, by suddenly applying the hands near the fire, after being chilled, by pricking the fingers, by contusions, &c.

Four species of paronychia are mentioned by writers; some of which are mild and superficial; but, others, more deeply seated, and attended with excruciating pain, inflammation, fever, and swelling of the whole hand. In these forms of the disorder, when suppuration takes place, the matter is lodged under the tendons, or upon the periosteum; which, if not discharged as soon as remission of fever, &c. indicate this process to have been accomplished, the bone becomes eroded, or carious, and a part of the finger, or hand, may be lost.

This disorder usually begins on the inner side of the finger; and, as already observed, advances slowly. Commonly, in two or three days, a speck, or spot of white, or yellow, indicates that matter is collecting. Fluctuation, on pressure, can seldom, in this case, be distinctly perceived.

In treating the witlow, it is first proper to examine, whether any splinter, or other extraneous substance, is lodged in the part, which must be removed. The child's hand should be suspended in a sling, and the finger repeatedly immersed in hot, or warm lye. If the hand is much swollen and inflamed, linen rags, soaked in camphorated spirits, ought to be frequently applied over the parts affected. When the swelling points to the spot, poultices, as directed, are to be applied, and the matter early and freely discharged.



#### SECTION VIII.

### BILES, OR BOILS, (*Furunculi.*)

BILES about the face, neck, head, and sometimes the chest, are very common among children, during the summer and autumnal months. They are, generally, of a chronic character, and unattended with any constitutional disorder. Those who take much violent exercise, are most subject to them. They are often produced by bathing in cold water, soon after being heated. Fat, or gross and plethoric subjects, suffer most with them, although the lean and poor are not exempt.

Those biles I have here reference to, are considered salutary in their character ; the subjects being, usually, free from any other complaints, during the eruption. They have been denominated the extroversive form of fever. These have a conic shape, with inflamed bases ; suppuration takes place in a few days, without assistance, with a copious discharge of well-digested matter ; which, however, ought to be accelerated by means of a puncture.

Biles commonly heal up without subsequent inconvenience, or disorder ; although, in a few cases, indelible cicatrices, or marks, remain.

It may be proper to give a little medicine ; for which purpose, six or eight grains of calomel, and the succeeding day, a dose of Epsom salts, will answer.

## CHAPTER IV.

**Abscess near the Hip-Joint.***(Morbus Coxaris.)*

**T**HIS disease is not uncommon among children, under the twelfth, or fourteenth year, and occurs independently of any strumous habit. I have met with it in three cases, where it could be traced to some casual circumstance. as lying in a damp place, contusions, &c.

The symptoms are, acute pain near the hip-joint, behind the great trochanter; in the groin, and now and then along the course of the last lumbar vertibræ. When neither the swelling, nor other morbid appearances are discernable, this is accompanied with lameness, slight at first but gradually increasing. The child frequently complains of great uneasiness, or pain, about the knee of the affected side, which may misguide the inexperienced. Some degree of fever also attends; the exacerbations are observed at noon, preceded by a coldness of the extremities. At length, a deep-seated fluctuation is perceived; after which, the febrile symptoms, and pain subside, but the lameness increases, and there is not unfrequently, an elongation of the limb, and a succeeding contraction, or shortness of the same, in consequence of the disorganization of the joint, and action of the muscles. At, or before this period, if the matter is not dis-

charged, the bones forming the articulation, become diseased, or carious, the capsule destroyed, and the limb perishes, or permanent lameness and deformity are induced; or, in some instances, the patient sinks under a hectic and emaciation.

On the first attack of the disease, the child must be kept in a resting posture; and, if the case is connected with scrofula, the treatment, as directed in that disease, to be observed, especially a low diet, and the daily use of purgatives. For this purpose, jalap, with cream of tartar, and Glauber's, or Epsom salts, should be given in sufficient quantities, to operate two or three times a day, or oftener, while the inflammation and fever continue. With the same intention, (to diminish these symptoms, and effect resolution) blisters about the joint, issues, cupping, and leeches, are proper. But, when there is reason to believe, that suppuration *will* take place, omit all these, and apply poultices of bread and milk, &c. As soon as fluctuation takes place, the matter should be discharged, by puncture with a lancet. Light diet is, subsequently, necessary, and laxatives, now and then; but, camomile tea, Columbo infusion, or some mild tonic, may be daily exhibited with advantage. Should, however, any causes concur, to produce a less-favourable issue, or the child, after the fever subsides, and the abscess has discharged, be unable to use his limb, splints\* may be so adapted to the hip, thigh, and leg, as to enable him to move about, without pressing upon the seat of the disease. In this manner, the joint may possibly be preserved, and the general health of the subject much improved.

\* Ford's observations on disease of the hip-joint.

## CHAPTER V.

**Spasmodic Diseases,**

## SECTION I.

## EPILEPSY.

**E**PILEPTIC fits, unconnected with hysteria, will occur sometimes during dentition, preceding the small-pox, and, at any period of childhood, but, most frequently after the seventh year. They are easily distinguished from convulsions. The child, while engaged at its book, or in play, will, without any premonitory symptoms, suddenly lose all sense of motion, and fall into violent agitation, with convulsive struggles. The distortion of countenance is very great, the muscles of the face are strongly contracted, and the adductors of the eyes, in particular, so much affected, that these organs exhibit an alarming and frightful appearance. The tongue is often severely bitten, being thrust out of the mouth during the paroxysm. After a short time, a frothy saliva issues out of the corner of the mouth; slight and momentary remissions are, again, quickly succeeded by fits; at length, the patient lies in a state of apparent insensibility, comatose, or drowsy; from which, after a

few hours, it recovers, but, without a consciousness of what has happened to him; excepting, during the existence of the fit, there is but little fever, or irregularity of pulse. I have known epilepsy to occur periodically. In general, the fits proceed from some functional, or organic disorder of the sensorium, produced directly, or indirectly,\* which, however, may not be congenite.

Fatuity, or an idiotic expression of countenance, is sometimes observed in these subjects, although not perhaps until after repeated attacks.

The predisposition is not greater in girls than in the other sex; and no remarkable delicacy of frame is noticed, although a mobility of constitution is observable, or rather, a predominance of sensibility.

The frequent exciting causes are, strong and sudden emotions of the mind, fright, or horror, operating unduly, and impairing the energies of the brain, a painful association of ideas, or periodical turgescence, or congestion.

In two, out of seven cases of epilepsy, which have fallen under my care, in the course of the last five years, the children were afflicted with tænia;† and a violent fit usually preceded the discharge of a portion of the worm. Of the others, two were under eight years of age, and were deformed from their birth. The moral faculty was, evidently, diseased, which discovered itself in a propensity to mischief, or evil practices, from which, they were, with difficulty, restrained.

When epileptic fits proceed from irritation, or sympathy with the bowels, as in worms, especially tænia;

\* Or, in medical language, idiopathic, or symptomatic.

† Or tape worms.

or the gums, as in teething; or the skin, as in small-pox; or, from strong affections of the mind, the remedies must be directed to the original causes, which are elsewhere treated of.

If the disease occurs periodically, and the subject be plethoric, blood-letting may be advantageously employed; purgatives should, also, now and then be administered, consisting of four or six grains of calomel; followed the succeeding morning, by a tablespoonful of castor oil. This may be repeated once a week, or oftener. The hair should be shaved, and blisters applied to the head. After violent paroxysms, brisk purgatives are immediately indicated. Afterwards, an emetic of tartarised antimony is serviceable. A seton kept open, in the back of the neck, or a salivation, may be used as prophylactics with advantage, also, electricity.

In cases of great mobility of constitution, the cold bath and tonics are useful. For this purpose, cinchona, with valerian, or serpentaria, or Columbo in substance, should be employed, and an emetic occasionally. I have given with benefit, one grain of *datura stramonium*, (Jamestown weed) three times a week, until a slight affection of the eyes were produced.

On examining the brain of an adult, who expired in a violent fit of this, (and had been subject to epilepsy from childhood,) a varix of the longitudinal sinus was discovered; it appeared to have recently burst. On a careful removal of the *dura mater*, the effusion of blood from this source was very great; the vessels of the membrane were in a turgid state, and other evidences of congestion were detected.

Fits, analogous to epileptic, I have sometimes known to be produced by *insolation*, or extraordinary exposure of young persons to the influence of the sun, While bathing at an improper time, in hot weather, a violent delirium succeeded.

The determination to the brain, in these cases, was strongly marked in the eyes, while the pulse was small and tense. Copious blood-letting, purgatives, and cold applications to the head, removed in a few days, every alarming symptom.

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## SECTION II.

### SPASMS, (*Tetanus.*)

THE locked-jaw of infants, (*trismus nascentium*) has been treated of in part 1, chap. 1, sect. 9. It is a variety of tetanic disease, and can only be produced by causes, which operate during early infancy.

This disease, however, like trismus, is common in tropical countries, and also occurs in temperate climates, during warm seasons. It is met with in this city, sometimes during our winter months. Its subjects are, generally, those who have passed the period of dentition; after which time, the older they are, the more liable they become, and the more violent the attack. Neither sex, temperament, nor constitution, are exempted.

The causes are, punctured wounds inflicted by nails, splinters of wood, &c. near the flexors of the toes, or

fingers, or through the tendinous expansions on the sole of the foot, palm of the hand, &c.; or by certain lacerations, or lesions of nerves, and gun-shot wounds. Writers also mention, cold and moisture applied to the body when heated, as lying in cool, damp places; as also, certain passions of the mind, &c. I have, however, witnessed many cases, and, in every instance, the disease could be traced to one of the first causes only.

From eight to ten, and sometimes twenty-one days, or longer, after the wound has been received, often when the part injured has healed up, and, in a few instances, when there was no recollection of any such hurt being sustained, the symptoms of tetanus have come on. The patient first complains of pain about the end of the sternum, or epigastric region; tension, or uneasy stiffness about the neck and jaws succeed, which, gradually increasing, extends along the whole course of the spine; the rigidity of all the muscles of the back and neck also increases, so that the head is jerked by paroxysms, violently backward; the muscles and parts, subservient to deglutition, also partake of these spasms, so that swallowing is rendered painful and difficult. These contractions increase in frequency and force, until almost all the voluntary muscles are thus morbidly affected; those of the jaws suffer so much, as, at length, to close the teeth; which symptom receives the appellation of trismus, or locked-jaw.

The extensors of the back and neck, experience more frequent and violent contractions; the paroxysms are multiplied; during which, the most distressing degree of rigidity exists. The features, at this stage, are dreadfully distorted; the antagonizing, or flexor mus-

cles of the face, neck trunk, and extremities, become affected, so that the patient is stretched into a state completely stiff and immovable; to which condition, the name of tetanus is applied. After suffering in this manner for two or three days, sometimes within forty-eight hours, a fatal paroxysm closes the afflicting scene.

This is the ordinary form, or course of tetanus, and is called *opisthotonos*, to distinguish it from *emprostotonos*, in which the flexor muscles are most strongly affected; but, this is acknowledged to be of very rare occurrence.

Dr. Lionel Chalmers\* has observed, with great accuracy, that danger from tetanus is proportionate to the rapidity of the attack. The spasm, occurring early after the injury, and the period of suspension, or remissions being short, so that the disease has terminated fatally in twenty-four hours; but, the prospect of recovery enlarges, when it is protracted beyond the ninth, or eleventh days. Unhappily, in many cases, the injury producing tetanus, appears so slight, as not to awaken apprehension in the subject, until the symptomatic disease of tetanic affection has taken place, and the system becomes, generally, affected; at which stage, topical remedies are of little avail; and even amputation of the part wounded, would be of very doubtful efficacy. The reader may consult M. Larrey *memoirs de chirurgie militaire*, tom. 1 & 2; Dr. Rush's observations, and other valuable works on this subject.

The treatment of tetanus must be decisive. The wound should be examined, and any splinters or extra-

\* Account of the climate and diseases of South-Carolina.

neous substances lodging in it, extracted, and, if not too near some important joint, dilated. After which, oil of turpentine is to be applied to the part. When the lower extremity is the part affected, the patient must not be allowed to walk ; or, if the hand is injured, he must rest it in a sling. The wound should be covered with poultices three times a day ; in each of which, oil of turpentine ought to be mixed. These are the best preventive remedies, when spasms are apprehended ; and they are also to be employed, after the symptoms of tetanus have come on. They should be continued, until suppuration in the part takes place.

The bowels are next to be evacuated. One tablespoonful of castor oil, with four or five grains of calomel, will accomplish this.\* Early after the operation, begin and give the tincture of opium, to a child about twelve years old, commencing with twenty-five drops, and repeat the dose every hour, or two hours ; but, oftener, if the symptoms are violent, gradually augmenting the doses to forty or sixty drops, if necessary. Bathe the course of the spine, from the back of the neck to the lumbar vertebræ, with a liniment, composed of equal parts of oil of amber and turpentine. The limb of the wounded part should also be bathed with it. Instead of this liniment, an extensive blister may be applied to the back, or the actual canterly employed, which has been found very efficacious.

Of all the remedies resorted to, in this distressing disease, there is none, perhaps, more valuable, or more

\* Vide, Dr. James Hamilton, on the utility of purgatives, p. 103.

beneficial, than the cold bath, or affusions,\* alternated with laudanum. The patient should be placed in a large tub, and cold water poured over its head and shoulders. This should be done every second hour; and the doses of laudanum exhibited (as directed) at the intermediate times. This mode of proceeding, seldom fails to produce, at least, a temporary remission of the paroxysms.

In one strongly marked case, a boy, about fourteen years, a recovery seemed to be effected in this manner, in thirty hours; the spasms gradually moderated, and then entirely ceased. He took one hundred and eighty drops of laudanum, and the cold affusions were administered six times.

The warm bath, musk, camphor, cinchona, and wine, have been recommended; but, I know of no method of treating tetanus, with a greater prospect of success, than the foregoing, if commenced early, and persevered in.

In one instance,† an attempt was made to induce relaxation by copious blood-letting, and brisk purgatives, as calomel, jalap, gamboge, &c; the effect was only transient, or momentary, the succeeding contractions were more dreadful, and the fatal issue accelerated.

\* This was an old process, but revived by Drs. Wright and Cochrane, of the West-Indies.

† This was the case of an elderly person; he had attained his 70th year!

## SECTION III.

CHOREA, (*Dance of St. Vitus.*)

THIS convulsive disease, attacks young persons from the age of eight or ten years, to puberty. The premonitory symptoms are, depression of spirits, langour, irregular appetite, costiveness, or unnatural stools, in which there is a deficiency of bile. The subject, for several days and weeks, seems reluctant to engage in any of the amusements of children. At length, convulsive motions, or twitches of the muscles of the mouth and eyes, are observed, which are followed by those of the neck and extremities; sometimes only of one leg and foot, or hand. These motions are, at first, not continued, but take place when the hand is to be moved, or the patient wishes to walk; at which time, the hands and feet are thrown into a variety of strange, irregular, and distressing motions; an agitation, jerking, or shaking of the head, is also often observed. After many days, this agitation, or convulsive affection, becomes more frequent, and is sometimes noticed during sleep, which is, consequently, disturbed and unrefreshing; emaciation; the speech is, also occasionally impaired.

When chorea has existed several weeks, the tongue, pharynx, &c. partake of the disease, deglutition and speech are much impeded, and the pulse is preternaturally quick.

With but *one* exception to the cases which have occurred under my notice, cathartics, to a moderate extent, the warm and cold baths, blisters, antispasmodics,

and tonics, as camphor, opium, cicuta, valerian, Peruvian bark, &c. were employed, with no other effect than that of moderating the symptoms; the disease recurred, and change of climate was resorted to.

The exception referred to, was a girl, aged fourteen years. The remedies abovementioned, were employed with but partial benefit. The *cold* bath was, at length, exclusively used daily. An attempt was made, previously, to salivate her, but without success. Mercury, in every shape, induced tenesmus and pain, which required the use of cathartics.\* The patient, however, began to improve in health, and confident expectation was entertained of her ultimate recovery, when the parents concluded to remove to some northern city, and she was taken with them.

Tonics will be proper to obviate the debility which succeeds this disease, but they should be carefully managed. The sulphate of quinine, may be useful in the disease; and habitual constipation of body prevented, by the occasional exhibition of an aloetic, or rhubarb pill.

The cold bath, in summer, change of air, and moderate, or agreeable exercise, will materially conduce to the re-establishment of health. Electricity has been found serviceable, in some cases, but prejudicial in others.

\* Dr. Hamilton's valuable work on *purgatives*, appeared subsequent to the occurrence of this case, which seems to support the efficacy of that system.

## SECTION IV.

## HOOPING-COUGH, OR CHIN-COUGH.

*(Pertussis.)*

ATTENTION is required in discriminating between a common cold and hooping-cough, on the first attack especially, as some degree of fever often accompanies this disease. The child sneezes and seems unwell, his eyes are inflamed, coryza, and other catarrhal symptoms attend; these continue several days, when a convulsive cough, with the hooping sound, manifests itself.

Hooping-cough, is to be distinguished by sudden, violent, and convulsive expiratory motions of the lungs, during every paroxysm of the cough; and, in consequence of air being thus expelled from the lungs, as strong and sudden inspirations, become necessary to restore circulation; and, consequently, to preserve life, the air, in this process, rushes into the lungs, through the glottis, with such velocity, as to produce this peculiar and sonorous effect, termed hooping. There is another striking peculiarity observable: On every attack of the cough, alarm and distress are impressed on the features of the child, who seizes upon any near object to support him during the paroxysm. This is not only noticed in children, but, also in well-grown subjects. The cough does not return at regular periods, but, will be more frequent on some days than on others; it is always more troublesome at night, than during the day. Sometimes, two or more fits of coughing will occur in

succession, which terminate with expectoration of phlegm, or mucus, or the contents of the stomach are brought up. Either of these afford temporary relief; the child, soon after, recovers its cheerfulness, goes to play again, or desires something to eat. It is always most favourable, and the paroxysms are shorter, when expectoration takes place.

The whooping-cough may continue from four weeks, to three or four months. It is seldom believed to arrive at its height until the second or third week. I have met with several cases, however, which were so extremely mild, that the whooping was scarcely, if at all perceptible; but, the cough was always attended with those peculiarities above described, especially the suddenness of attack, and impression of alarm at the approach.

There are some constitutions, which suffer severely by the disease. Dyspnœa, or difficult breathing, pain about the chest, and fever, denote alarming congestion. Suffusion of the face, turgescence of the vessels of the eyes, and bleeding at the nose, are not uncommon. The latter symptom, when the discharge of blood is moderate, is not considered unfavourable.

This is a contagious disease, and usually prevails as an epidemic. It affects a subject but once during life. The predisposition in children, is greatest under the twelfth year, but no period is exempt.

I have, at present,\* under my care, cases of it in subjects under five months, and one severe instance in a gentleman above thirty-five years. By far, the greater

\* July, 1824.

number of mild cases, were those of children at the breast. After a fit of coughing, they return again to the breast, suck with increased avidity, and go through the complaint very well.

The hooping-cough has recently prevailed as an epidemic at the Orphan-House; upwards of forty-six children have been afflicted with it. The most alarming and dangerous cases, were among those who were between the second and fifth year. Although they are all, at present, in an advanced state of convalescence, in several instances, the cough seemed to have entirely subsided, when a slight cold would re-excite the disease with the characteristic hoop.

The method of treatment, must be adapted to the constitution of the patient, and the violence of the symptoms. A degree of inflammatory action will, generally, be discovered in the first stage; consequently the remedies employed for catarrh, will not only relieve the system, in this disease, but produce a favourable influence on its subsequent course, by mitigating its force, and abridging its duration. When the symptoms, therefore, are violent, blood-letting, adapted to the age and constitution, will be proper. Cathartics are also advisable; for this purpose, Glauber, or Epsom salts, with antimonial wine, should be directed. Emetics, in the first and second weeks of the disease, are singularly beneficial; they relieve the stomach, diminish spasmodic action, and exert an expectorant virtue. They are to be occasionally repeated, as the urgency of symptoms indicate. In exhibiting the emetic, one grain of tartarised antimony, with ten of ipecacuanha, should be mixed in four ounces of warm water, and given in doses

of from one to two table-spoonsful, every twenty minutes, until vomiting is fully produced. The diet, in the early stages, ought to be light and easy of digestion; and clothing in this, as well as in the chronic form, adapted to the season and atmospherical changes. In wet and cold weather, flannel should be worn by weak and sickly children.

Costiveness ought, at all times, to be obviated by the seasonable exhibition of a laxative dose; a little magnesia and Epsom salts, will answer best. If dyspnœa, or fever, recur, blood-letting must be resorted to, with evacuants; and when the patient complains of pain in his chest, a blister, applied over the affected part, will prove useful, especially, as congestions, or obstructions, are to be apprehended. Under these circumstances, two or three grains of ipecacuanha, given in a spoonful of sage tea, every fourth hour, will abate febrile heat, determine to the surface, and assist expectoration.

Worms may sometimes aggravate the febrile paroxysms; when these are suspected to be concerned, purges of jalap, or rhubarb, with calomel, or mixed with powdered spigelia, are useful.

As the disease often continues, from a habit acquired over the constitution, a variety of remedies have, at different times, acquired celebrity among the antispasmodics, musk, camphor, the preparations of opium, and oil of amber, are most in repute. The external application of a mixture of equal parts, of the last mentioned, with spirits of turpentine, rubbed along the course of the sternum and epigastrium, has been beneficial; as also, an ointment composed of *one* drachm of tartarised antimony, and *two* of lard, rubbed in, night and morn-

ing, until an efflorescence, or pimples, are produced on the surface.

Dr. Robertson of London,\* speaks highly of the *effects* of the antimonial ointment. I have, in many cases, experienced its usefulness.

During the course of hooping-cough, it is now and then necessary, at bed-time, to exhibit a few drops of laudanum, camphorated tincture of opium, or one or two grains of compound powder of ipecacuanha, particularly when a laxative dose, or emetic, has been administered in the course of the day; but, too frequent use of anodynes, will be prejudicial.

The salt of tartar and cochineal, or rather, the mineral alkali, as advised by Dr. Pearson, of London, may be serviceable, when acidity exists in the stomach, which is frequently the case in the chronic stage; but, small doses of magnesia, combined with a few grains of powder of Columbo, in doses, repeated two or three, times during the day, will prove more efficacious, by gently opening the bowels, and strengthening the digestive organs. Subservient to this view, or as sub-tonics, the infusion of camomile, with flaxseed, Columbo, or wild horehound, should be employed; but, if no catarrhal symptoms exist, effusions of cold water, in summer will correct the relaxing power of the weather, and seem to diminish the frequency and duration of the cough. Their invigorating effects have been remarkable in many cases. Equal advantage may result from the use of the warm bath in winter.

\* Vide, London Medical Repository, for Jan. 1821.

Although the too frequent employment of emetics, and active purgatives, are improper, they are required, whenever inflammatory symptoms re-appear.

When œdematous affections occur, or the lungs become diseased, which may be recognized by pain, purulent expectoration, and hectic fever, from one to two grains of fox glove, and the like quantity of calomel, may be given, daily, and blisters applied to the chest.

With young children, violent fits of coughing are sometimes succeeded by convulsions, which carry off the little sufferer, or it may suffocate during a paroxysm. The warm bath must here be immediately resorted to, and a few ounces of blood taken away; and those means adopted, for restoring suspended animation, which are directed for the recovery of still-born children, as, inflating the lungs, rubbing, &c. (see chap. 1, sect. 1, part. 1.)

Change of air, riding, or such moderate exercise, as will tend to amuse the mind, and increase the action of the perspiratory vessels, will almost invariably be found useful.

## CHAPTER VI.

**Worms.**

**I**NTESTINAL worms are so common, that there are few children exempt from them. There is something humiliating in the reflection, that these animals are known to exist in the living body, from the earliest period to an advanced stage of life; they have been voided in the feces of an infant of ten weeks, and by adults of sixty years. Generally speaking, they rarely infest the bowels of children at the breast, or those who are healthy and robust; and the secretions of grown persons, particularly the bile of those who are in health, is destructive to them.

Delicate children, those who subsist most on vegetable diet, and are most frequently indisposed, are such as suffer most by them.

The number they sometimes pass, is almost incredible. I have seen six and twenty lumbrici, (round worms) voided by stool, from a subject of four years, within thirty hours.

Dr. Rush has observed, what daily experience and dissection confirm, that they seldom induce sickness, but when in great numbers; or when fever, from other causes, renders the intestinal heat too great for them, the irritation then excited, engenders disease more complicate and dangerous.

“Worms serve as scavengers,\* by removing the superabundant mucus in the bowels of children.” But, it will readily be conceived, that they may also induce emaciation and debility, by destroying the chyle intended for the support of the body, and may, mechanically, obstruct the functions of the bowels.

There are four kinds found in the human subject; the ascarides, resembling small white threads; the trichures, about two or three inches long, with capillary ends; lumbrici, or common round worms, resembling earth-worms, but longer and white, having only two longitudinal lines, or marks; and the tænia, or tape worm, which is of great length, and usually voided in detached portions. The two first kinds infest the *ilium* and *rectum*, and often creep away spontaneously, or may be washed out by glysters. The two latter kind occupy every part of the bowels; they sometimes get into the stomach, and are vomited up. This is, indeed, a common occurrence with respect to the lumbrici; and instances have occurred, of their creeping into the throat, and producing suffocation.

Worms are, certainly, more frequently believed to be the cause of many chronic complaints of young persons, than any circumstances justify; and remedies, of a prejudicial nature, are, accordingly, administered.

The manner in which they are produced, in the living system, must remain a matter of speculation.

As young and delicate persons suffer most, it seems extremely probable, that they are generated in the mucus of these subjects. The weak state of the bile, con-

\* Rush's observations.

sequent slow indigestion, and constipation, favour their increase.

The symptoms usually discovered in children, affected by worms, are, an indifference to food, or loss of appetite; but, sometimes this is irregular, and now and then, even inordinate; frequent picking of the nose, grinding the teeth, especially at night, screaming, its breath is fœtid and disagreeable. There is often a swelling of the upper lip, the complexion pale and sickly, the belly tumid, with pain and costiveness, although sometimes a diarrhœa attends, the stools are fœtid, at times dysenteric, or slimy, with other evidences of intestinal irritation; a dark circle is, occasionally, observed about the eyes, a short, dry cough, fever, and head-ache; convulsions are also among the concomitants.

The treatment must be regulated by the state of the constitution, and attendant symptoms, especially where fever attends, (*vide*, part 2, chap. 1, sect. 3.) Generally speaking, it is improper to exhibit emetics in the first instance. Purging doses, consisting of three or four grains of calomel, and six of jalap, with one or two drops of oil of wormwood, mixed in syrup, may be administered now and then; especially if costiveness attends, during the intermediate days, a glass of decoction of Peruvian bark, with spigelia, or infusion of Colombo, two or three times a day. Should much debility attend, or acidity of the primæviæ, the addition of a few drops of compound spirits of ammonia, or a few grains of magnesia, to each dose, will be advisable. The bark of the root of pride of India, may be substituted for spigelia; but, neither of these anthelmintics

are to be administered in too strong doses. Affections of the eyes, and even convulsions, may be produced by them, when thus incautiously used. When, however, these unpleasant effects are observed, a tablespoonful of olive oil, or a dose of castor oil, or about ten grains of ipecacuanha, should be administered. As a vermifuge purgative, a tablespoonful of castor oil, with from ten to thirty, or sixty drops of oil of turpentine, often proves efficacious, in expelling both the lumbrici and tænia.

The spigelia, in doses of six grains of the powdered root, with one or two of calomel, will be serviceable in obstinate cases. The dose may be repeated, for three nights successively; and, on the following day, if the medicine does not open the bowels, the cathartic dose, above directed, with oil of turpentine, will be proper; also, powder of rust of iron, in doses of six or eight grains, with two of calomel, every other night, in syrup.

When much emaciation and debility attend, the decoction of cinchona, or Columbo, as advised, will be necessary, and generous diet, with sometimes a little wine, or brandy and water. The carbure, or rust of iron, is here also serviceable, in doses of ten grains, or more, in syrup. Should the child be disordered in the bowels, or diarrhœa take place, an emetic of ipecacuanha, rhubarb, and magnesia, and, occasionally, a few drops of laudanum, will be serviceable. The spigelia, calomel, castor oil, oil of turpentine, gamboge, and aloes, are all efficacious in *tænia*.

The expulsion of this species of worm, is frequently preceded by epileptic fits.

Several cases have occurred under my notice, where large portions of *tænia* have been spontaneously voided, when no symptoms were manifested; and one recent instance, in which the patient was believed to have been perfectly restored to health, and no medicine had been administered for a length of time. This is the case of a boy, in his twelfth year, who was placed under my care, being afflicted with epilepsy and *tænia*. In the course of twelve months, he had passed several pieces of the worm. A fit was always the precursor to the expulsion; his complexion was unhealthy; and among other symptoms, there was a preternatural dilation of the pupils, with tendency to strabismus.

In August, 1822, after a course of anthelmintic cathartics, as above described, he voided fifteen feet of *tænia*, the largest piece measuring nine feet. From this period his health improved, as well as his intellectual powers, a degree of fatuity having been previously induced by the violence of his fits. These did not recur, and, to all appearance, he had quite recovered. On the sixth of May, 1824, without any premonition, excepting a slight fit, he expelled another piece of the worm, measuring fifteen feet, differing in colour and size from the former portions. This was of greater width at one extremity, and terminated in short and narrow joints. The colour was milk white. It retained life for several hours after being voided. Since this, he has enjoyed an entire exemption from fits, and his constitution seems re-established.

There are cases on record, of electric shocks passed through the body, having destroyed the tape worm.

The thread and hair-like worms, (ascarides and trichures) are dislodged by glysters of soap and water, decoction of pride of India, spigelia, &c. two grains of aloes, and the like quantity of calomel, made into a pill with soap, taken once or twice a week, will prove very effectual. The portion of the ingredients, are to be regulated by the age and constitution of the patient.

## CHAPTER VII.

**Diarrhoea.**

*(Lax, or Looseness, and Disorder of the Bowels.)*

**W**HILE treating of stomach and bowel complaints, in part 1, chap. 4, sect. 2, this disorder, in early childhood, was adverted to as occurring during dentition. The complaint, as now considered, arises from other remote and exciting causes. These are various, such as taking cold, by premature change of clothing, unwholesome food, worms, acidity and acrimony in the stomach and bowels, &c. repelled eruptions, &c.; the two latter may be ranked among the most common occasional causes.

The digestive organs of children are frequently oppressed, during summer especially, with fruit and improper diet. If the stomach does not seasonably reject these, fermentation, and consequent acidity and diarrhoea, take place; the quantity, as well as the quality, of the substance, will also prove hurtful, and produce inordinate peristaltic motion, and morbid dejections.

In this complaint, there is pain or soreness about the umbilicus, sometimes fever; the stools are frequent, of a dirty, or dark colour, very liquid, the patient is languid, and loses his appetite. When acid predominates, the passages acquire a dark-green appearance, and,

especially when the secretion of bile has been increased by fever.

The disease is, sometimes, suddenly brought on, by indiscreetly drinking large quantities of cold water. Many children are allowed to indulge in this pernicious habit, of distending their stomach.

The pump-water of this city is, in summer, twenty degrees cooler, than the temperature in which we breathe. Copious draughts, therefore, impair digestion, induce *debility* in the chylopoetic viscera, and disorder which discovers itself in cholera and diarrhœa.

In those cases of diarrhœa, accompanied with pain, or soreness of the epigastrium, and about the umbilicus, an emetic is proper. Ipecacuanha, combined with tartarised antimony, should be given in a mixture, until vomiting takes place. Acid, or green bilious matter, with some indigestible substance, will generally be brought up. In the evening, eight or ten drops of laudanum may be necessary; this ought to be mixed with a little prepared chalk and water, or cinnamon tea. On the succeeding morning, a mixture of Glauber's salts, with magnesia, will be advisable; to be administered in small doses, until physical stools are produced; after which, the child's strength is to be supported with arrow-root, veal, or chicken broth, &c. The cure may be accomplished, after these, by a few grains of ipecacuanha and rhubarb, with prepared chalk, in a mixture, and one or two table-spoonsful of it given six or eight times a day. Occasionally, a few drops of laudanum, or one or two grains of compound powder of ipecacuanha, will be required in the evening. Should much debility, or loss of appetite attend, an infusion of Co-

lumbo, with a few drops of tincture of rhubarb, or lime-water and milk, ought to be administered daily. The warm bath is also beneficial; and, in tedious cases, a decoction of bark, with cinnamon, sometimes adding a few drops of laudanum, and a change of air.

In severe and protracted instances of diarrhœa, blisters to the epigastrium, or near the umbilicus, have a good effect. A few grains of calomel, will serve to change the nature of the stools, and carry off vitiated bile. After which, a gentle emetic of ipecacuanha, or a mixture of small doses of this medicine, with a few drops of laudanum, will produce a happy effect.

When diarrhœa proceeds from repelled eruptions, (or the striking in of some cutaneous disease,) the system above advised, is also proper. Blisters are here of singular efficacy, applied to the back, (between the shoulders) to the wrists, as well as to the epigastrium, in succession; if the strength is too much reduced to bear emetics and evacuants, *these*, with the warm bath, and a mixture of small doses of ipecacuanha, with prepared chalk and laudanum, prove highly beneficial. Arrow-root, seasoned with cinnamon, and a little wine, or brandy, will, in such cases, be useful; and the flesh brush, or frictions over the body and extremities, ought not to be neglected.

Sometimes the bowels are loose and disordered, without pain. A mixture of a few grains of magnesia, with peppermint, and three or four drops of laudanum, under these circumstances, will remove the complaint.

However imperious the call for astringents may seem in diarrhœa, they are to be cautiously used in young subjects. There is always danger of obstructions, es-

pecially in the mesenteric glands, when intestinal disorder is attended with pain, tumefaction of the body, and febrile symptoms.

Children bear evacuants better than has formerly been admitted ; and the early use of astringents, except in urgent cases, is highly improper. In this view of the subject, the indication of cure will be, to allay and remove the centripetal disorder ; which may safely be performed, by adopting the abovementioned plan.

Where obstructions are suspected, a laxative dose, with three or four grains of calomel, once or twice a week, will prove serviceable, and the system advised in mesenteric fever, (see chap. 1, sect. 8, part. 11.)

## CHAPTER VIII.

**Dropsy.**

**T**HIS consists of an accumulation of serous, or gelatinous fluid, in the cellular texture, or in some particular cavity, and is *general*, as in anasarca, or *encysted*, as in hydrocele, &c. already treated of. It is, in reality, but the effect of some previous disease, and seems to be immediately induced by debility, or torpor of the lymphatic system; or, as some writers allege, an increased exhalation and diminished absorption.

Dropsies attend, or succeed obstructions, or schirosities of the viscera, of the thorax, or of the abdomen, protracted remittent, and intermitten fevers.

Anasarcous swellings, in young persons, now and then follow the typhus form of fever, when blisters, if they have been employed, are observed to sphacelate.

The symptoms are, a pale complexion, thirst, swelling, partial, or general, uneasy respiration, debility, quick pulse; but, when there is an effusion in the chest, it is irregular, or intermitten. Dry skin and drowsiness, are usual concomitants; the urine is, at first, pale, but afterwards, high-coloured, scanty, and deposits on standing, a red sediment.

As an inflammatory diathesis still exists in young subjects, especially when the disease has been suddenly induced, they frequently recover; but, with those who

are older, the prognosis is less favourable. When the effusion is in the body, (in ascites) a fluctuation, or undulatory motion, is readily perceived, by placing the hand on one side of the patient's body, and gently striking it on the opposite side with the other hand, and in the extremities, by the parts retaining the pressure of the finger.

In the *treatment*, the *original* disease must be considered. If the effusion has not long existed, and the appetite and constitution not materially impaired, cathartics of jalap, and cream of tartar, emetics, and at intermediate times, tonics, diaphoretics, and diuretics, are proper. For this purpose, a small glass of the infusion of thoroughwort, with eight or ten drops of tincture of fox glove, or squills, may be given two or three times a day. When worms are concerned, the spigelia, or pinkroot, should be added. Exercise, or when impracticable, frictions over the body, ought not to be neglected. When the disease is in the chest, a salivation has proved highly efficacious.

## CHAPTER IX.

## Wounds.

As it is, in a peculiar manner, the province of surgery, to treat of these subjects, I shall content myself with offering only a few remarks, on injuries proceeding from these causes.



## SECTION 1.

## INCISED WOUNDS.

WOUNDS, inflicted by sharp cutting instruments, require immediate attention; when blood-vessels and arteries, in particular, are divided, which bleed profusely, the patient may die of hemorrhage. If, therefore, a limb be the wounded part, a tourniquet should be applied, until the bleeding vessel is held by a forceps, a better instrument than the tenaculum, and secured by a ligature. The wound must then be washed, and the edges neatly approximated, and secured by the interrupted suture, and adhesive strips, and covered with light dressings; the whole to be supported by bandages. Whenever practicable, an union of wounded parts should be effected by the *first intention*; with this

view, fingers and toes, when almost separated, may be retained by bandages and strips, and made to re-unite.

Hemorrhage, from wounds of the head, may, generally, be restrained by compression, and suitable bandages.

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SECTION II.

PUNCTURED WOUNDS,

THESE should always be carefully examined and washed; and any extraneous body, as a splinter, thorn, nail, portion of glass, &c. extracted, or removed. After which, oil of turpentine may be dropped into the wound, and the part poulticed for several days. It is generally considered most safe, to persevere in this application until suppuration takes place. Under this treatment, unnecessary exercise may be avoided.

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SECTION III.

LACERATED AND CONTUSED WOUNDS.

LACERATED wounds are to be allowed to bleed moderately, and to be washed and cleansed of any extraneous substances, which may keep up irritation in the injured part. When there is much laceration, poultices should be applied, and repeated until suppuration takes

place. Subsequent pain and inflammation may, however, require blood-letting from the arm ; and the antiphlogistic treatment, comprehending laxative medicine, low diet, cool air, &c. Contused wounds require discutient embrocations, as vinegar, solutions of the sugar, or acetite of lead, camphorated spirits, &c. In the Paris hospitals, lotions of salt and water, are used with equal effect. Inflammatory symptoms, when they take place, must be subdued by blood-letting, laxatives, and the antiphlogistic treatment, as advised in the foregoing case.

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#### SECTION IV.

### POISONED WOUNDS,

*Inflicted by the bite of a rabid animal, a rattlesnake, and venemous insects.*

A WOUND, produced by the bite of a dog, suspected to be mad, or any other rabid animal, ought to be immediately washed by copious and long-continued effusions. Warm lye-water, if at hand, will be most effectual ; but, when not convenient, the cold is to be used ; the object being, to remove, as speedily as possible, the saliva of the animal, and the poison. When the bite has not been inflicted contiguous to a joint, or some important blood-vessel, or vital part, exsection of the wound is the most certain preventive of hydrophobia.\*

\* Vide, Rees' Cyclopedia, and Lattas' System of Surgery.

• or amputation, if the finger, or toe, has suffered ; and there should exist, no doubt of the rabid state of the animal, nor ought this to be delayed. But, should the nature of the case preclude a resort to this operation, the wound, after being well washed, as directed, may be burnt with lunar caustic, or washed with a solution of ammonia, and, subsequently, dressed with poultices of bread and milk, or the bruised leaves of the scutellaria, • or scull-cap,\* which has acquired some reputation in these cases.

The foregoing system should be pursued, although a day or two may, unfortunately, have elapsed, after receiving the injury ; hopes may still be cherished, that *excision*, or amputation, will save the constitution, or preserve the subject from one of the most dreadful disorders to which humanity is liable.

The bite of a rattlesnake, viper, &c. may be treated on similar principles to the preceding. Dangerous consequences of wounds, of this description, are, for the most part, to be prevented, by freely and copiously washing the wounds, and afterwards, pouring upon them spirits of ammonia, or hartshorn, and subsequent dressings with olive oil and meal, or bread and milk poultices.

A similar plan may be adopted, for relieving the distressing and painful effects of the bite, or sting of venomous insects. Soft linen rags, soaked in oil and lime-water, and spirits of ammonia, are to be laid over the part affected, after being washed.

\* The internal use of the scull-cap, is also recommended in hydrophobia, in doses of one teaspoonful, mixed in milk, morning and evening, for three or four weeks. The plant here referred to, is the *scutellaria galericulata*.

## CHAPTER X.

**Luxations and Fractures.**

**T**HE softness, or imperfect ossification of the bones of infants, prevent that liability to luxations and fracture from casualties, which we observe in children of larger growth

Injuries, however, of the spine, the hip, and the large joints, are sometimes discovered long after a fall, or other accident. Close examination, and early counter-acting remedies, ought, in every instance, to be attended to. Fractures of the arm, the leg, clavicles, ribs, &c. are readily discovered by the crepitus, or crackling produced by handling them, and the usual deformity, or rising up of one end of the broken limb, or bone.

When a fracture of one, or more bones of the leg, or forearm, occurs, the limb must be reduced to the natural state or position, by the process of extension, counter-extension, and coaptation, and so secured by bandages and splints. When the bones of the arm, or thigh, are broken, the extension must be carefully maintained, by an apparatus accurately and judiciously applied.

This splints\* and bandages, employed with this intention, should be adjusted in such a manner, as to counteract the constant tendency of the muscles, which

\* Vide, Dessault's Surgery, Potts, and other eminent writers.

cover and act upon these parts, to displace the fractured extremities, and defeat the object of the surgeon.

A common luxation, is that of the head of the humerus, by a blow, or fall, upon the point of the shoulder. The head of the bone, by this violence, is driven from its connection, (the glenoid cavity) most commonly into the axilla,\* where it is easily felt. The luxation is reduced by an assistant, extending the arm, by uniformly, but firmly pulling it, when in a direction nearly at a right angle with the body, while the surgeon, passing a towel, or a long and wide bandage, under the arm-pit, brings the ends across, or over the shoulder, and pulls obliquely upwards, producing, in this manner, a counter-extension. When this is performed, with due precision and force, the dislocated head is soon heard to re-enter the cavity from which it had been forced.

Luxations, as well as fractures of the collar bone, are to be reduced by raising the forearm and hand, and resting them in a sling, previously applying a cushion in the arm-pit,† with a bandage suitable for retaining it, as well as for making a due degree of pressure upon the ends of the fractured bone. immediately over which, a compress of soft linen cloth had first been placed.

\* Arm-pit.

† The reader will consult Dessault's Surgery, also Potts, Bell, Cooper, &c.

## CHAPTER XI.

**Burns and Scalds.**

**T**HESE are the most distressing casualties to which children are liable. Human nature is not susceptible of greater torment, nor of enduring more intense pain, than they inflict; nor are the sympathetic feelings more strongly excited for a little sufferer, than in these cases.

A burn, although it often affects a part severely, occasioning, sometimes, a destruction of substance to some depth, does not, generally, prove so alarming and dangerous as a scald. The hot, or boiling liquids, which produce the latter, usually operate more extensively, and danger, for the most part, is proportionate to the extent of injury; exceptions, perhaps, where some particular part of great sensibility has been injured, in contiguity with a vital organ.

The symptoms attending a burn of any extent, are violent inflammation and pain, fever, coma, drowsiness, oppressed breathing, and mortification of the injured part.

To diminish pain and inflammation, are the first objects of the practitioner. A variety of topical applications, have been recommended with this intention.

The evil, and, sometimes, fatal consequences, which result from the delay of judicious and suitable remedies, in these cases, render it advisable and prudent,

to provide such as are most reputed. There are, happily, however, such a variety, suited to this painful and alarming emergency, that a due degree of presence of mind, seems alone necessary to their seasonable and efficacious employment. They may be mentioned in the following order:—cold water, vinegar, spirituous liquors of any description, a mixture of equal parts of lime-water, and linseed oil, and raw cotton.

When the hands, or feet, have suffered, they should be immediately plunged into a basin, or tub of cold water, and kept there for some time; as the water becomes warmer, it should be changed. It will be proper, to preserve the hand in an extended state, as the flexor tendons may be permanently contracted.

When the body, chest, &c. are affected, soft linen rags, soaked in spirits, may be applied; and these are to be continued and renewed, if necessary, until all painful feelings subside; after which, the parts should be covered with dressings of lime-water and linseed oil.

When the injury has been very violent, and much inflammation has been excited, blood-letting and laxatives are required, and ought not to be omitted when the symptoms are accompanied with fever. In some cases, it may be proper to administer an anodyne, after the remedies, above advised, have been employed.

I was first led to the choice of cold water, as a topical remedy, from witnessing its decided efficacy, on a boy, who burnt his hand in a shocking manner with gunpowder. With the palm opened, it was immersed in a basin of cold water; which, in ten minutes, began to prove most happily efficacious; the pain, which was excruciating, and inflammation, subsided; and after

continuing this remedy for two hours, complete relief was obtained. Appearances, in the first instance, were very alarming. Equal success invariably continued to attend the adoption of this plan.

Scalds, when neglected, produce vesication; the effused serum should be let out, by means of small punctures, without removing the cuticle; and spirits, or lime-water, and linseed oil applied, as above advised.

Ulcers, succeeding burns, heal slowly; which fact furnishes an additional inducement, for using remedies as above described. They directly abstract heat and inflammation, consequently mitigate pain, and exert a salutary astringent property.

When, however, from inattention, or other causes, ulcers take place, the growth of fungus is luxuriant, and, with difficulty, kept down. The application of burnt alum, or lunar caustic, and the pressure of bandages will most speedily remove it, and favour cicatrization. When mortification, or gangrenous appearances, are observed, the external use of tincture of myrrh, and Peruvian bark, as well as its internal exhibition with wine, and, occasionally, laudanum, become necessary.

## CHAPTER XII.

## On Management.

MAN is the creature of imitation and habit, “angel yet in this, that to the use of actions, fair and good, she kindly gives a livery, or a frock, which aptly is put on.” This is conspicuously exemplified in childhood.

There are but few persons acquainted with well-regulated families, who do not bear testimony to the comfort, peace, and happiness enjoyed by the social circle, where a system of management has been adopted, with children, tending to control the early influence of improper *dispositions* and *affections*, or to discipline the temper. There is a period of life, when this can be effected with comparative facility, without unnatural exertion, or violation of the feelings of the tender parent.

Like noxious weeds, evil qualities spring up, unperceived; and if not seasonably removed, acquire a growth, which must cost great pains and labour to subdue, or eradicate.

To use the sentiments of the learned Bishop of Durham, childhood is the state of discipline and improvement, and *that* both in our temporal and religious capacity, “the subordinations\* to which children are accus-

\* Butler's Analogy, page 87.

toned, will teach self-government in common behaviour, and prepare them for subjection and obedience to the civil authority ;” consequently, for the most rational degree of peace and happiness.

The advantages of the system adverted to, are incalculably great, whether considered in the morning of life, or in maturer age.

As in the foregoing sketch of diseases, there have been shown, “leading phenomena of fever, consisting in a series of movements, which produce crisis and types ;”<sup>\*</sup> which serve to regulate the course of the wary and discerning practitioner. So, there are *premonitory* symptoms, and the intelligent parent, or nurse, may profit by them. They should never be disregarded, as the *prevention* can, with less difficulty, be accomplished, than a cure, when the complaint is established.

To answer this indication, (in the prophylactic system) due regard to *cleanliness*, suitable diet, and dress, are of vital importance, and indeed, require attention at all seasons. Their neglect must be considered among the most prolific sources of disease.

I am, by no means, an advocate for prescribing on slight occasions ; parental anxiety, too often leads to the practice of crowding, or oppressing the child with *medicine*. When, however, it becomes *necessary* to administer something of this kind, promptitude and precision in management, ought to be observed, and are, especially, enjoined, in cases where the physician has been consulted. It is both just and generous, that his

<sup>\*</sup> Medical Logic, by Sir Gilbert Blane, page 50.

directions should be conformed to ; the delay of one hour, or even a few minutes, will often frustrate his intention, and, perhaps, prove fatal.

It is truly afflicting to see, on some occasions, the conduct of the child, and want of firmness in the parent. Persuasion and coaxing are unavailing ; with as little effect, are disgusting and impotent threats resorted to. So far from being productive of good, they prove reciprocally hurtful, by aggravating the disorder, and in some measure, defeating the object of the prescription.

Far different is the case, when a child has been taught to conform to the commands, or wishes of a parent. It will take what is directed, and feeling relief, and the pleasure obedience imparts, will, subsequently, as exigencies require, from these causes, and an acquired sense of duty, conform to the authority which directs him.

I am here, unavoidably, induced to notice an error of a serious nature, too often fallen into by relatives and friends, as well as parents ; which is, to yield to despondency, or relax in the means advised for the little patient, while there is a possibility of their being effectual.

Having, in numerous instances, witnesssd recoveries of children, who were brought extremely low by *sickness*, I feel encouraged in saying, that *hope* may be cherished, while the pulse is discernable ; and when professional opinion sanctions a perseverance in remedies, they should not be abandoned. But, even when the *awful issue* appears inevitable, the avenues to dissolution may be soothed. An obligation to *other endearing*

*ties*, demand a due composure and moderation in the expression of sorrow. Religion claims it with a submission to Divine Will.

Of all the afflictive dispensations of Providence, we must surely admit, that there is none more keen and severe than that, we here contemplate, it forms a cloud between *divine* goodness and the finite views and conceptions of man; and the anguish of soul almost overwhelms. The loss of a child is like tearing away a vital part of the body. Life is so dear, that "all that a man hath, would he give for it."

But, the *pious mother* is consoled with the assurance, that the angel of death, lingers to conduct the infant sufferer to the gates of paradise, to bear him from a world of sickness, sorrow, and trouble, to the mansions of purity, peace and joy. Revelation declares this to be the lot of those children, who pass from life to eternity. Often, too often, perhaps, are we called to contemplate the dreadful condition of *maturer* age, when the awful stroke of mortality is, at once, a dismissal from life, and the summons to judgment!!

Much may be adduced in support of the happy influence of an early control over the dispositions of children. Where the family is large, it is but with the first child, that the task is at all difficult. The example, once established, almost accomplishes every thing with those who are younger.

In the Orphan-House of this city, where there have been, for ten years past, about one hundred and eighty children, annually nursed and provided for, instances rarely occur, where difficulty is experienced, in admin-

istering medicine, or in the performance of an operation however painful.

It will astonish the stranger to hear, that a child of but five or six years, will sit to have a tooth extracted, its eye scarified, or be bled, with as much, or more composure, than many adults ! The explanation is sufficiently satisfactory ; the afflicted child is instructed to believe, that its pain will be removed ; *it* is not intimidated by the anxious but impolitic expression of fear, too common with parents. It complies with the desire of its nurse, obtains relief, and this is witnessed by its little associates, who, as occasions offer, emulate this conduct.



FINIS.



